The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 296.—Vol. XI.] LONDON: SATURDAY, APRIL 24, 1841. [Price 6d.

PUBLIC COMPANIES.

MEETINGS.

ANGLO-MEXICAN MINT COMPANY.—Notice is hereby given, that the ANNUAL GENERAL MEETING of proprietors of shares in this company will be held at their offices, 9, New Broad-street, on Tuesday, the 4th day of May next. The chair will be taken at One o'clock precisely. At this meeting two directors will be elected—one in the place of John D. Powles, Esq., who goes out by rotation, but is elegible to be re-elected, and one in the room of Benjamin Shaw, Esq., who has resigned.

G. B. LONSDALE, Sec.

9, New Broad street, London, April 6.

IMPERIAL BRAZILIAN MINING ASSOCIATION.—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the proprietors of this association will be held at the London Tavern, Bishopsgate-street, on Thursday, the 13th of May next, in pursuance of the bye law passed at the Special General Meeting of the 6th of February, 1828. Notice is hereby also given, that this Half-Yearly General Meeting is made Special, in pursuance of the following requisition:—

"4th Month 4th, 1841.

"TO THE DIRECTORS OF THE IMPERIAL BRAZILIAN MINING ASSOCIATION.

"We, the undersigned, being proprietors of 200 shares and upwards in the Imperial Brazilian Mining Association, hereby request you to call a public Meeting of the shareholders, or to make the regular meeting in 5th month (May) Special, for the purpose of taking into consideration the propriety of emancipating the slaves held by the company, and for securing to them their future freedom."

The chair will be taken at One o'clock precisely.

Winchester House, April 20. GEORGE THOMAS, Secretary.

MEXICAN COMPANY.—The directors hereby give notice, that the ANNUAL GENERAL MEETING of proprietors will be held at the offices of the company, on Thursday, the 6th of May next, at Two o'clock precisely, in conformity with the deed of constitution of the company.

32, Great Winchester-street, April 20. J. M. MAUDE, Sec.

WEST WHEAL JEWEL MINING ASSOCIATION.—Notice is hereby given, that the ANNUAL GENERAL MEETING of the shareholders will be holden at the company's office, as under, on Monday, the 10th day of May next, at Twelve o'clock precisely. By order of the board,

23, Threadneedle-street, April 20. ROWLAND NICHOLSON, Sec.

*** None but registered shareholders can attend the meeting.

DIVIDENDS.

TRETOIL MINING COMPANY.—Notice is hereby given, that a DIVIDEND of TEN SHILLINGS per share on all shares in the Tretoil Mining Company has been this day declared by the directors of the said company, the same to be payable at the office of the company, on Wednesday, the 26th May next, and on every succeeding Wednesday, between the hours of Twelve and Three. The certificates of shares must be left for examination seven days prior to the payment of the dividend, and the books of the company will be closed from the 13th to the 26th of May, both days inclusive.

By order of the board of directors,

6, St. Mildred's-court, Poultry, April 21. S. BUXTON, Sec.

BOLANOS MINING COMPANY.—INJUNCTION.—Brown v. Buxton, Bart., and others.—Notice is hereby given, that his Honour the Vice-Chancellor hath this day granted an injunction in this cause, restraining the defendants (directors of the above company) from raising money in the manner mentioned in the resolutions of the 14th day of April instant, in the bill stated or referred to, and also from carrying or taking any steps or proceedings for the purpose of carrying the said resolutions, or any of them, into effect.—Dated this 20th day of April, 1841. PERING, MINET, and SMITH, plaintiffs' solicitors, Lawrence Pountney-place, London.

ANDREW SMITH'S PATENT WIRE ROPES, for standing rigging, lightning conductors, stropping of blocks, mining, railway, and general purposes; about half the size and weight of hempen ropes, and 25 per cent. cheaper. Testimonials to that effect, with specimens, may be seen, and every information obtained, at the office, 76, Old Broad street, city; 69, Princes-street, Leicester-square; manufactory, Mill-wall, Poplar; and also of the following agents:—

Fox, Hawkins, and Hickling, New-street	Birmingham.
Robertson and Co., 12, Goree Piazzas	Liverpool.
Matthias Dunn	Newcastle-on-Tyne.
Joseph Bothway	Plymouth.
John Thompson and Co.	Wigan.
J. T. Tregellas	Truro.
Thomas Mooney and Son	Dublin.
Coates and Young	Belfast.
James Kibble and Co.	Glasgow.
James Gunn	Leith.

This rope has been in use for standing rigging in her Majesty's Navy, and in a great number of merchants' ships, for upwards of five years, and is giving the highest satisfaction; the rope is also employed in various mines and railways in different parts of the kingdom, but reference is especially made to the Blackwall Railroad, where its capabilities have been most severely tested, for although it has been in use upwards of eight months, and has travelled a distance nearly equal to the circumference of the earth, it is, to all appearance, as good as when first applied.

THE PATENT SAFETY FUSE,
FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the safest, cheapest, and most expeditious mode of effecting this very hazardous operation. From many testimonies to its usefulness with which the Manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c., &c.:—

"I am very glad to hear that my recommendations have been of any service to you. They have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

THE CLASS LECTURES at the ROYAL POLYTECHNIC INSTITUTION.

CHEMISTRY, by Mr. MAUGHAM. These lectures continue to be delivered in the laboratory of the institution on Tuesdays, Thursdays, and Saturdays, at Seven o'clock in the evening.

STEAM ENGINE and STEAM NAVIGATION CLASS, with most complete models for naval officers and others, on Monday and Friday evenings, at Eight o'clock. Course, Three Guineas.

ENGINE DRIVERS' CLASS, on Monday and Wednesday evenings, at Nine o'clock. Course, Two Guineas.

ELECTROTYPE.—A course of six class lectures on the theory and practice of this highly interesting and important application, by Mr. BACHHOFFNER. This course will take place on the entry of twelve pupils, and be delivered on Mondays and Fridays, at Ten A.M. Course, One Guinea.

MATHEMATICS, by the Rev. DAVID LANG, M.A., &c., at Eleven in the morning. Course, One Guinea. Fee, for a private course of four lessons, One Guinea.

Mr. Maugham conducts assays and analyses.

Particulars of the courses to be had of Mr. R. J. Longbottom, secretary.

THE INVENTORS' ADVOCATE, AND JOURNAL OF INDUSTRY; a WEEKLY BRITISH and FOREIGN MISCELLANY of SCIENCE, INVENTIONS, MANUFACTURES, and ARTS, in the most useful and comprehensive work of the kind published. It contains the scientific intelligence of the week; correct information on railways and steam navigation; list of patents granted and expired; specifications and descriptions of new inventions; reports of scientific meetings, and original papers on manufactures and the arts; with a variety of information interesting to inventors and patentees. It is not only a journal of interest for the day, but forms a standard work of reference, valuable to persons engaged in scientific, manufacturing, and mechanical pursuits. Vols. I and II, neatly bound, are already published, and the 3d Vol. is now in course of publication.

The *Inventors' Advocate*, price Fivepence, postage free, is published weekly, by the proprietors, at the patent office, No. 166, Strand, London.

THE ONLY PAPER EXCLUSIVELY DEVOTED TO RAILWAY INFORMATION.

THE RAILWAY TIMES, published weekly, price 6d. stamped, contains full and accurate reports taken exclusively for this paper of all railway meetings, with directors' and engineers' reports, and other official documents at length—authentic reports of the progress of railway works—notices of railway publications and plans—all the public and private proceedings of Parliament on railway bills—notices of railway improvements of every kind—detailed reports of all law cases affecting railways—the fullest particulars of the rise and progress of foreign railways—complete railway share lists for London, Liverpool, and Edinburgh—railway traffic returns—and a great variety of extensive information. The *Railway Times* is an excellent medium for railway and scientific advertisements.

Published every Saturday morning in time for the Morning Mails: office, No. 172, Fleet street, opposite St. Bride's Church, London; and may be had of authorized agents in Liverpool, Birmingham, Manchester, Bristol, Bath, and Edinburgh; also by order of all booksellers and newsmen in town and country.

STANNARIES OF CORNWALL.
IN THE VICE WARDEN'S COURT.

PURSUANT to a decree of the Vice-Warden's Court, made in a cause of "Morcom and others v. Codner and others," the creditors in respect of the CUDDRA CONSOLIDATED MINES, in the parish of St. Austell, within the said Stannaries, are forthwith to come in and prove their debts before the registrar of the said court, at his office in Truro, or in default thereof, they will be excluded the said decree. CODDE, SONS, and SHILSON, solicitors, St. Austell.

Dated April 12. PAUL and ROBERTS, solicitors, Truro.

STANNARIES OF CORNWALL.
IN THE VICE-WARDEN'S COURT.
MORCOM AND OTHERS v. CODNER AND OTHERS.

WHEREAS the Vice-Warden did, on the 10th day of April instant, order, by consent of the defendants, that a sale be made of (amongst other things) the Machinery and Materials upon and belonging to the Cuddra Consolidated Mines, in the parish of St. Austell, within the said Stannaries, under the direction of the Registrar of the Court, and that the proceeds of such sale should be applied by the said registrar in the manner directed by the decree in the above-mentioned cause.—Notice is hereby given, that pursuant to the said decree, a PUBLIC AUCTION will be holden at the CUDDRA CONSOLIDATED MINES aforesaid, on Monday, the 10th May next, and following days, at Eleven o'clock in the forenoon of each day, for selling, either together or in lots, the undermentioned MINING MACHINERY, MATERIALS, and other effects—viz., 2 steam-engines, one 36-inch cylinder, with copper receiver, and two boilers of about fourteen tons each, the other a 30-inch cylinder, nearly new, with two boilers of about twelve tons each, and a warming tube fly-wheel and bob, two large and one small capstans and shears, two capstan ropes 170 fathoms 14-inch each, one capstan rope 120 fathoms 7-inch, seven horse whims, ropes, and shaft tackles. The following pumps:—Thirty 9-foot 14-inch, thirteen 9-foot 12-inch, nine 9-foot 11-inch, sixteen 9-foot 9-inch, eleven 9-foot 8-inch, six 9-foot 6-inch, and two 6-foot 5-inch, with working H and door pieces, plunger poles and cases, clack seats and windbores to match, about 160 fathoms of 5, 8, and 11-inch connection rods, with plates and bolts, 120 fathoms 6-inch flat-rods, with triangles and rollers and bob, thirteen 14-inch and nine 7-inch bucket rods and joints, 1,0 fathoms of 8-inch flat-rods, a large water-wheel in parts, and the following water-wheels:—one 18-foot, 34-inch breast, one 16-foot, 2-foot breast, and one 13-foot, with axles and frames, lifters and heads complete, for 8, 16, 8, 6, and 4 heads of stamps, twelve loose stampheads, a wrought-iron crushing axle, cast-iron crushing chairs, a large quantity of wrought and cast iron, an iron safe, tram waggons, chains, several whim kibbles, a quantity of new rope and old junk, two smiths' bellows 42 and 40-inch, several anvils and vices, several blocks with brass sheives, a quantity of brass, brass and iron sieves, a large handscrew, two screw stocks, several beams, scales, and weights, a very large quantity of timber, several launders, tin frames, buddles and sheds, a grindstone, old bricks and tiles, ladders, smiths' and miners' tools, miners' chests, counting-house furniture, &c.

For viewing the same, application may be made at the mines; and for further particulars (if by letter, post paid) to Messrs. Coode, Sons, and Shilson, solicitors, St. Austell; or to Messrs. Paul and Roberts, solicitors, Truro.

Dated April 21, 1841.

SOUTH WALES—COLLIERIES OF ANTHRACITE COAL AND IRON MINES.

MESSRS. BRAY and SON have the honour to announce, that they are instructed to SELL, by AUCTION, at Garraways, on Wednesday, April 28th, at Twelve for One, in three lots, the very valuable freehold estate of Thornhill, in the county of Carmarthen, containing 730 acres, together with the very extensive and valuable MINERAL PROPERTY adjoining, running under upwards of 2000 acres. The peculiarly favourable position of this property, its extent, compactness, and intrinsic value, are such as to be far beyond the limits of an advertisement, but which are fully detailed and set forth in the particulars, with lithographic plans and sections, which will at once establish it as one of the most desirable opportunities for the investment of capital which has been offered to the public for some years.

Particulars may be had of Messrs. Bicknell, Roberts, Finch, and Neate, 17, Lincoln's Inn-fields; at the Ivy Bush, Carmarthen; Mackworth Arms, Swansea; Bush Inn, Bristol; York Hotel, Manchester; Hen and Chickens, Birmingham; Exchange, Liverpool; Bell Inn, Gloucester; Hop-pole Inn, Worcester; of Mr. Gibb, Royal Hotel, Edinburgh; Buck's Head Hotel, Glasgow; Royal Hotel, Dundee; Plough Inn, Cheltenham; Tontine Hotel, Sheffield; Royal Hotel, Southampton; and at the offices of the auctioneers, 259, High Holborn.

The property may be viewed on application to Mr. Jacob Davies, at the Cross Hands Inn, or at the house at Thornhill.

Pumping, Lifting, Atmospheric, and High-Pressure Steam-Engines and Boilers, Railway Waggons, Boats, Colliers', Smiths', and Carpenters' Tools, other valuable Colliery Machinery and Utensils, Draught Horses, Carts, &c.

TO BE SOLD, BY AUCTION, by MR. T. M. FISHER (by order of the proprietors, Messrs. Thomas Livesey and Co., in consequence of the termination of their lease), on Wednesday, Thursday, and Friday, the 12th, 13th, and 14th days of May, 1841, at the Alkrington Colliery, 4½ miles from Manchester, on the Rochdale road, the very important and valuable COLLIERY MACHINERY and UTENSILS, including capital pumping engine with triple beam, cylinder 76½ inches diameter, stroke 7 feet 6 inches, with remarkably strong and well fitted apparatus for pumping water from a depth of 150 yards by three lifts of pumps, with one brass and two iron working barrels, 16½ inch diameter; condensing steam-engine, cylinder 70 inches diameter, stroke 5 feet, with winding apparatus; ditto, ditto, cylinder 18½ inches diameter, stroke 4 feet; atmospheric pumping engine, cylinder 33 inch diameter, 6 feet stroke, with two lifts of pumps, 11-inch working barrels, raising the water 50 yards, and six-horse high pressure steam-engine, with boiler, rope, and machinery for drawing up an inclined plane 700 yards long; two cylindrical fluid steam-boilers, 22 feet long, by 9 feet diameter; one ditto, 20 ft. 4 in. by 6 feet diameter; one ditto, 17 ft. by 5 ft. 6 in.; and one ditto, 12 ft. by 6 ft. diameter, each with the feed pipes, cisterns, safety-valves, doors, and bars; 3000 yards of wrought-iron railway, with the chairs, sleepers, shunts, and branches, the rails weighing 21 lbs. to the yard; twenty-six large, strong, well-built coal waggons, now used for conveying the coals from the colliery to the Rochdale Canal, along the rails, which are 4 ft. 8½ in. apart; a very large quantity of cast-iron pit rails and waggons, of the best construction; thirteen boats, for carrying coals to Manchester, nine of which are nearly new, having been built on the premises, of first-rate materials and workmanship; colliers' working tools, as the' bellows, anvils, tools, and several valuable sets of stocks, taps, and dies; carpenters' tools and benches, two lathes, large quantity of timber, rod, bar, scrap, and cast-iron, new and old brass, and brass furnace and tools; wheelbarrows, planks, benches, ropes, chains; capital iron weighing machine, up to four tons, by Galloway; the counting house fixtures, and eleven useful draught horses, shaft and leading gears, six broad wheeled carts with iron arms, and other effects. The whole may be viewed on and after Monday, the 10th May, and catalogues had on the premises, or of the auctioneer, 17, Princess street, Manchester.

TO BE SOLD, BY PRIVATE CONTRACT, that extensive coal field, known as the HAZLERIGG COAL MINES, together with the long-established, and valuable current going colliery, called FAWDON COLLIERY, situated about three miles north of Newcastle-upon-Tyne, with all the fixed and moveable stock thereon.

The coal, which is the High Main, or Wall's End seam, is of excellent quality for domestic purposes, and has been well known in the London and coast markets for the last twenty-six years as "Newmarch's Wall's End." A new winning was completed between one and two years ago, and a pumping engine erected thereon, considerably more than competent to the fullest requirements of the colliery, and no outlay will be needed in the winning of new portions of coal to this colliery for a long period of years. The great extent of the Hazlerigg coal field, comprising about 4000 acres, affords the opportunity of establishing other valuable collieries.

For further particulars, application may be made to Mr. James Easton, the colliery viewer; to Mr. Thomas Forster, Hazlewell colliery, to John Wilkinson, Esq., solicitor, Hull; to Messrs. Bell, Brodrick, and Bell, solicitors, Bow Church-yard, London; or to Messrs. Carr and Jobling, solicitors, Newcastle-upon-Tyne.

Newcastle, November, 1840.

TO CONTRACTORS AND OTHERS.

FOR SALE, BY PRIVATE CONTRACT, FIFTY CAPITAL EARTH WAGGONS, to carry 14 yards, with 2 front wheels of the best construction; also, a quantity of parallel rails, about 30 lbs. per yard, with chairs and crossings; three portable steam engines, of 8, 10, and 14 horse power respectively; several powerful cranes; two cast-iron diving bells, with air pumps and the requisite gear; together with some excellent blocks, chains, &c.; the whole conveniently situated for water conveyance. *Apply to Mr. Rowland, 6, Upper Ground-street, Blackfriars-road, London.*

TO IRON-MASTERS OF MODERATE CAPITAL.

TO BE LET, with immediate possession, on very advantageous terms, distant about seven miles from the sea, a NEWLY ERECTED MILL and FORGE, with a Vaughan's Blast Engine, for smelting ore and working iron, with an unlimited and easy supply of the best ore, varying from 40 to 60 and 70 per cent.; fuel of all kinds to be had on very terms, the compressed peat also none of hand. The whole worked by water, and will be increased by the owner to any extend required upon a fixed rent for capital laid out.

Further particulars to be had, by a line addressed to "Mr. Jones," at Caines and Co.'s, booksellers, 2, Halkin-street west, Belgrave-square.

WEST FOWEY CONSOLS MINE, Cornwall.—A FEW SHARES PAID UP in this highly important, valuable, and very flourishing copper mine, presenting the most favourable and unlimited prospects, confirmed by the reports. A SMALL PREMIUM REQUIRED.—Further particulars at Mr. H. Dowling's House and Land Offices, 4, West Strand, London.

THE MINERS' COMPANY, incorporated by Royal Charter, A.D. 1691, under the style and title of
THE GOVERNOR AND COMPANY OF COPPER MINERS IN ENGLAND,
Capital £1,000,000, in 10,000 shares of £100 each.
Old Broad-street, and Castle Baynard Wharf.

GOVERNOR—Abel Lowes Gower, Esq.
DEPUTY-GOVERNOR—William Revell Vigers, Esq.

ASSISTANTS.

James Alston, Esq.	William Gladstone, Esq.	John MacDonnell, Esq.
Starling Benson, Esq.	Chas. Frederick Huth, Esq.	John Henry Pelly, Esq.
William Dobree, Esq.	William Little, Esq.	Louis Vigurs, Esq.
William Gilbertson, Esq.	Hart Logan, Esq.	Gregory Scale Walters, Esq.

MANAGING ASSISTANT—Trevenen James, Esq.

COMMITTEE IN CORNWALL.

John Batten, of Penzance, Esq.	Joseph Lyle, of Bonython, Esq.
Edwin Ley, of Penzance, Esq.	John Vigurs, of Rosehill, Esq.

BANKERS.

London—Messrs. Glyn, Halifax, Mills, and Co.
South Wales—The Glamorganshire Banking Company.
Cornwall—Messrs. Batten, Carne, and Carne, Penzance.
Messrs. Vivian, Grylls, Kendall, and Co., Helstone.

SOLICITORS—Messrs. Crowder and Maynard.

The present extended design of this ancient corporation is to afford facilities to the mining interests generally, but more especially to those of Cornwall, by securing to miners the means of having their ores smelted upon ascertained and reasonable terms, and the metal manufactured on their own account, and afterwards sold at a fixed charge for commission and guarantee.

The necessity for a change in the old system, under which the miner had no alternative but the sale of his ore to the smelter, has long been felt. Under the old plan the miner had not the chance of participating in the profit derivable from the manufacture of the metal from the ore, and was not a free agent in the disposal of his property, having practically been obliged to part with his ore, even at a depreciated price, while the smelter was enabled to hold his metal till a favourable change of market took place. The increased capital of the company enables it to afford great advantages to the mining interest, by making such advances to the miner on receipt of the ore as its known value reasonably warrants—thus relieving the miner from the necessity of precipitating sales, while at the same time the active capital of the company is profitably employed. By these means miners reap the full return of their industry, and the company receive a fair remuneration for the services it performs. It may be mentioned that the change of system now adopted has for some time been successfully acted upon as regards tin, and that many of the leading producers of copper ore have made arrangements for connecting themselves with this company, both as shareholders and as consigners of their minerals.

In order to carry out these principles with certainty to a beneficial result, it was necessary to provide such establishments for smelting as would ensure to the company the means of accomplishing to the full extent the operations which they have in contemplation, arrangements for that purpose, of a satisfactory nature, are now concluded, embracing, among other valuable acquisitions, an inexhaustible supply of coal, the exportation of which beyond what may be required for smelting purposes will of itself become a source of great profit to the company. The union of all the sources of profit to the company above alluded to—viz., commission, interest on capital, full development of the extensive coal property, &c., affords the strongest grounds of expectation that a more than usually advantageous return for the capital invested will annually result to the shareholders.

By their charter the most ample powers are conferred upon the corporation to hold mineral property of any description, as well as to smelt the produce, and prepare the metal for sale; and, in addition to complete exemption from individual responsibility, it embraces, amongst other extensive privileges, the right to raise by subscription, either amongst the present or additional shareholders, any amount of capital that can be advantageously employed.

The calls upon shareholders do not at present exceed 12l. per share; but every shareholder has the option of paying up at once 65l. per share—an option of which the holders of nearly half the shares have already availed themselves; and, in order to render light and distant future calls on the shares of such parties as prefer to pay by instalments, the Court of Assistants have determined to issue debentures, for which they have already received applications to a considerable amount. These debentures will be received in payment of calls.

Applications for shares or debentures may be made at the offices of the company, Old Broad street, where further information may be obtained.

N.B.—The company continue to receive consignments of ore at their works at Swansea and Cwm Avon, as well as orders for copper and tin at their offices in London.—April, 1841.

OPENING—GREAT NORTH of ENGLAND RAILWAY.—The public are informed that the GREAT NORTH of ENGLAND RAILWAY was OPENED from YORK to DARLINGTON, for public traffic, on Wednesday, the 31st of March. The trains will depart at the following hours:—

FROM DARLINGTON TO YORK.

5 45 A.M.—Taking passengers for London, Derby, Birmingham, Sheffield, and Manchester.

8 A.M.—Taking passengers for London, Derby, Birmingham, Sheffield, Manchester, Leeds, Selby, and Hull.

12 30 P.M.—Taking passengers for Derby, Sheffield, Manchester, Leeds, Selby, and Hull.

3 P.M.—Mail, taking passengers for London, Derby, Leicester, Birmingham, Sheffield, Manchester, Leeds, Selby, and Hull.

6 P.M.—Taking passengers to York.

FROM YORK TO DARLINGTON.

6 A.M.—Bringing passengers from York.

7 30 A.M.—Mail, bringing passengers from London, Leicester, Derby, & Sheffield.

9 35 A.M.—Bringing passengers from Manchester, Leeds, Selby, and Hull.

2 30 P.M.—Bringing passengers from Birmingham, Nottingham, Derby, Sheffield, Manchester, Leeds, Selby, and Hull.

6 P.M.—Bringing passengers from London, Birmingham, Derby, Sheffield, Manchester, Leeds, Selby, and Hull.

Until further notice, passengers will only be booked as far as York, where the carriages are changed.

Until the 6th of April, 1841, the London mail trains will leave York at 8 15 A.M., instead of the hours stated in the time table.

On Sundays only the mail trains run.

FARES BETWEEN YORK AND DARLINGTON.

Passengers—1st class, 12s.; 2d class, 9s.

Carriages—On two wheels, 20s.; on four wheels, 30s.

Horses—One, 5s.; two, 8s.; three, 10s.

Parties riding in their own carriages, and children under seven years of age, at lower rates.

Carriages and horses must be at the station a quarter of an hour before the departure of the trains; and, to prevent disappointment, previous notice should be given to the station.

The company will not be responsible for luggage, unless it is booked and paid for according to its value; and passengers are particularly requested to have their name and address fully marked thereon, and to satisfy themselves that it is deposited on the carriages.

THE THAMES COAL AND STEAM DOCK AND RAILWAY COMPANY.

Capital £100,000, in 4000 shares of £25 each. Deposit £3 per share.—To be incorporated, and the responsibility limited by Act of Parliament.

The object of this company is to carry into effect that which becomes every day more and more necessary—viz., to clear the Pool and the narrow part of the Thames of colliers and steam vessels by a well-digested plan of a dock and railway, which will be beneficial to the commerce of London, to all the consumers of coal, and profitable beyond any other scheme yet devised to the capitalists concerned in its accomplishment. When it is considered that nearly 3,000,000 tons of coals are consumed in London annually, and that other goods are brought by vessels which have to wait the turn of the tide, and run all the risks, and encounter all the danger of a crowded Pool, to an extent of perhaps 1,000,000 tons more, there is, consequently, a larger and more lucrative field for the judicious investment of capital than any that has yet been presented to the public. The grand desideratum is to be as near London as possible, to accomplish this object, so that the smallest outlay may effect it, hence a site nearly opposite Woolwich, on the north bank of the Thames, has been fixed upon as possessing every natural advantage that can be desired for a dock or harbour for colliers and other vessels, and which being connected with a level country all the way to London, presents advantages for a railway or tramroad not surpassed by any locality in the kingdom. The dock will present conveniences for colliers and other vessels to discharge their cargoes in any quantity so as to save the time and money now wasted; and as all the vessels will be unloaded by machinery, the coals will be preserved whole, and not converted into dust as they are by the existing process. Immediately on the cargoes being unloaded, they will be weighed and despatched by railway to spacious warehouses formed by its arches near the city terminus, and let down by machinery, so as to preserve the whole from breakage, or any other injury. The rent of the warehouses under the arches will form an additional source of income. Further details, with the names of the trustees, directors, &c., will shortly be published; and, in the mean time, all applications may be made to A. B. Steele, Esq. John Harmer and Steele, 87, Hatton-garden, London.

Just published, demy 8vo., cloth boards, price 10s. 6d.,

THE COMBUSTION OF COAL and the PREVENTION OF SMOKE theoretically and practically considered. By C. W. WILLIAMS.

Part the First. Second edition, illustrated with coloured diagrams.

London: Simpkin, Marshall, and Co., Stationers' hall court, and J. Weale, High Holborn. T. Bunn, Albion office, and W. Webb, Liverpool; Wrightson and Webb, Birmingham; Slocombe and Dickson, Manchester; Finlay, Glasgow; Curry and Co., Dublin.

LAW INTELLIGENCE.

LIABILITY OF SHAREHOLDERS.

COURT OF QUEEN'S BENCH—APRIL 19.

PETHERICK v. ENGLISH AND OTHERS.—This action was brought by the plaintiff, as the captain and cashier of a mine in Cornwall, against five defendants, four of whom were the committee of management of the mine, the fifth (a person of the name of Waskett) being alleged to be a shareholder of the mine. The declaration was upon two bills of exchange drawn upon the committee of management of the mine, and accepted by two of the defendants (Waskett not being one) as such committee. The defendant Waskett pleaded that he had not accepted the bills. The cause was tried on the 10th of February before Lord Denman, and a verdict was returned for the plaintiff.

Mr. THESIGER was now instructed to move for a rule to show cause why there should not be a new trial on the ground of misdirection. It appeared that this mining company had been established by the defendant English; that the defendant Waskett had purchased twenty shares, which had been entered in the name of his wife, and he had attended two or three meetings of shareholders. For the plaintiff evidence was given by the agent of the mine that it was usual in mining concerns for bills to be accepted by the directors, and it was submitted that the directors had power to bind each other by bills, if it became necessary to accept such instruments; but in answer to this it had been contended that where bills were accepted by a committee of management the shareholders were not liable, and, therefore, the plaintiff could not recover of the defendant Waskett, who had never been a member of that committee, nor indeed had he been a shareholder, as the shares had been taken in his wife's name, whereas it was necessary to show that he was himself a shareholder.

Lord DENMAN said, he had thought that if he (Waskett) knew of his having a share and acted upon that knowledge, that would make him a shareholder. As to the other point, he thought it had gone to the jury upon the question of Waskett having acted as if he had been on the committee of management.—Rule granted.

GRAND COLLIER DOCK COMPANY.

COURT OF COMMON PLEAS—APRIL 19.

COLVER v. GUYON.—This was an action on a printer's bill, against Capt. Guyon, who was sued as a director of the Grand Collier Dock Company, and it was tried in London before the Lord Chief Justice, during the sittings after last term, when a verdict was found for the plaintiff—damages, 50*l*. It appeared that on the 27th April, 1837, a meeting was held for the formation of the company, and a provisional committee appointed, of which the defendant was a member; but the company was not incorporated by Act of Parliament till the 15th July, when an Act passed which provided, amongst other things, that no director was to be individually liable for contracts entered into on the part of the company. It appeared also that a portion of the plaintiff's bill, about 19*l*., related to a period antecedent to the 27th of April, and another portion, about 127*l*., related to a period subsequent to the 15th of July; but the verdict of the jury was given for the intervening period, it having been contended on the part of the defendant that he was clearly not liable before he was proved to have taken any part in the concern, nor after the Act of Incorporation had passed, by which directors were relieved from personal responsibility.

Mr. Serjeant ATCHERLEY now moved for a rule to show cause why that verdict should not be increased by the addition of the amounts incurred before the 27th of April and after the 15th of July, on the ground, as to the former, that the defendant must be taken to have adopted the contract, and, as to the latter, that this contract was not one upon which, within the terms of the Act, the plaintiff could sue the company, and that, with regard to such contracts, the individual directors were still liable.—The court granted a rule to show cause.

BOLANOS MINING COMPANY.

VICE-CHANCELLOR'S COURT—APRIL 20.

BROWN v. BUXTON AND OTHERS.—In this cause an injunction was prayed for on the part of the plaintiff, to restrain the directors from raising additional capital under the resolutions passed at a meeting of the proprietors, held in March last, the several affidavits on which such application was grounded having been duly filed.—The Vice-Chancellor at once granted the injunction.—The question at issue will be found treated upon more fully in another column.

LEAMINGTON JOINT-STOCK BANK.

COURT OF EXCHEQUER—APRIL 20.

BOULTON v. SHAPE.—This was an action upon a guarantee bond for 8000*l*., upon which 394*l*. had been advanced to the Leamington Joint-Stock Bank which failed in 1837. It was tried before Lord Abinger at the late assizes held at Warwick, when a verdict was found for the plaintiff.

Mr. HILL now moved for a rule nisi to enter the verdict for the defendant, to enter a nonsuit, to reduce the verdict in various instances, or for a new trial. The learned gentleman went at considerable length into a history of the transactions of the bank, but before he concluded his statement he was interrupted by

Lord ABINGER, who said the case was a very complicated one, but the facts might be easily agreed upon—in his opinion it would greatly facilitate the ends of justice if they were to turn them into a special case. He had very full notes, and if they could not agree upon the facts, let each side send in their statement to him and he would settle the case for them.—This suggestion was adopted.

MIDLAND COUNTIES RAILWAY COMPANY.

RAIL COURT—APRIL 21.

THE QUEEN v. THE COMPANY.—Sir F. POLLOCK applied to the court for a *certiorari* to bring up two inquisitions which had been holden before the coroner of the borough of Derby, upon the bodies of two men, named Taylor and Knight, who had both lost their lives by one and the same accident, which occurred upon the railway in the immediate vicinity of Derby, on the 26th of January last. The object of the application was to cause the inquisition to be quashed for several defects and irregularities which were alleged to appear upon the face of the instrument itself. It appeared that upon the occasion in question one train having been stopped upon the rails, another coming up unexpectedly, the deceased parties were propelled from the moving train against the stationary one, and were so much injured by the shock that they both died very soon after. The jury had in each case found that the engine and tender upon which the deceased parties were placed at the time of the accident was moving to the death, and they awarded a deodand of 800*l*. in each instance. The first objection which the learned counsel took to the inquisition was, that as the accident which caused the deaths of both the deceased parties was one and the same act or circumstance of concussion, the jury had the power to levy only one deodand. They could in any case find only the value of the subject which was moving to the death. But if the course which had been pursued upon the present occasion were admissible, it might happen that twenty persons should be killed by one and the same accident, and that a subject matter which was the cause of the death, and which was worth only 800*l*., might be made the means of charging the owners of it with deodands to twenty times that value. Such a consequence was entirely contradictory to the state of the law, as the party who was liable to the deodand had the power of handing over the matter itself instead of the value which had been fixed upon it by the jury. The learned counsel made several other objections to the instrument, which were all of a more technical character than that already mentioned, except one, which proceeded upon the ground that a material part of the inquisition was worded, so as to mean, in fact, nothing at all.—The rule was granted.

LONDON AND BRIGHTON RAILWAY COMPANY.

VICE-CHANCELLOR'S COURT—APRIL 22.

THE COMPANY v. COOPER.—This was a motion to dissolve an *ex parte* injunction, restraining the trustees of the Brighton and Shoreham turnpike-road from removing some blocks of stone which the railway company had laid down across the road for the transit of their trucks from a wharf, belonging to the company, on the off-side of the road, to their branch from Brighton to Shoreham. It appeared the parties had been negotiating for some time as to the mode in which the company were to make a passage between the wharf and the railway across the road. After a fruitless attempt to arrange the matter, the company proceeded to lay down a stone track or causeway across the road, without altering its level, for the purpose of wheeling the loaded trucks over it. The trustees insisted the company had no right to cross the road, except on the terms contained in the Act as to crossing turnpike roads, whereas the company urged those terms were quite inapplicable where it was never meant to use steam-carriages in crossing a road.

His HONOUR, after referring to the Act, dissolved the injunction, with liberty to the company to bring an action.—The case was before the court for the last two days, but it involved no point of general interest.

[An appeal from this decision was made yesterday in the Court of Chancery, when the LORD CHANCELLOR, after hearing the arguments of counsel, said he conceived the company were not authorised by the Act to deal with the turnpike-road as they had done, and the motion must, therefore, be dismissed, with costs.]

A LADY BAL SELLER AND A REVEREND ADVENTURER—CORNWALL v. CAMBRIDGE.

MANSION-HOUSE—APRIL 22.

A lady of the name of Gully was summoned before Alderman Pirie to answer the complaint of the Rev. Lionel Bailie, a senior Fellow of King's College, Cambridge, under the following rather curious circumstances:—

Mr. Bailie, who was accompanied by Mr. Humphreys, solicitor, stated that he was introduced in February to Mrs. Gully by a medical gentleman whom he professionally consulted, and in the course of a conversation which he had held with her, she informed him that she had got a mine in Cornwall, produced some of the ore from a box, and proposed to him to become a shareholder in a company. He, however, did not then know whether he should have funds to engage in the concern, and he did not consent. Subsequently he saw the lady at her house, and she said to him, "Mr. Bailie, if you will accommodate me with your bill, I shall get it discounted by my wine merchant, and let you have 14*l*., and some shares in the mine." He consented to give her his bill for 50*l*., but she informed him afterwards that she could not get cash for it, and he thought that he should hear no more about the matter. By accident, however, he discovered that the bill had been actually negotiated. He then called at her house to expostulate upon the subject, but she received and treated him with very little ceremony indeed, and he intimated to her through his attorney that she should be put to some trouble on the subject. The lady thought proper, after he had demanded to be informed of the meaning of such conduct, to make affidavit that he was going out of the country, and the consequence was, that he was arrested before the bill became due.

Mr. Humphreys here stated, that as the law at present stood, no party could be arrested for a civil debt under such circumstances, unless upon the oath of somebody that he was going to leave the country.

Alderman PIRIE asked whether Mr. Bailie had contemplated leaving the country?—Mr. Bailie said that he had no notion of it at all. After his arrest he remained five days in confinement. Upon application to the judge, however, the authority upon which he was detained was cancelled, and he recovered his liberty. He had to pay the amount to a Mr. Warwick, into whose hands the bill had fallen. It was proper for him to state, that he had the imprudence to sign his name in a book agreeing to take shares in the mining concern, but Mrs. Gully had assured him that the cash was not to be paid up till the steam-engines were in readiness to commence operations.

Alderman PIRIE—How did you find the mine answer?—Mr. Bailie—I found that it was altogether a nonentity, and that myself and two others constituted the entire body of the shareholders. I was thus put to 40*l*. law expenses, so that the loss I have sustained by the transaction amounts to 90*l*.

Alderman PIRIE—Were you supplied with any certificates for shares?—Mr. Bailie—None at all. There was nothing done; the thing had no foundation at all.

Alderman PIRIE—Were no officers appointed?—Mr. Bailie—None whatever. There were no directors, no secretary, nor solicitor, to the "Wheal Trevenon Mine," as the mine was called.

Mrs. Gully's solicitor asked several questions, to which Mr. Bailie replied, that he supposed there was an action pending against him in this matter; that the amount for which he had been arrested was, he believed, 72*l*. or 73*l*., the balance of which he was to pay for the shares.

Alderman PIRIE—And were there no shares delivered to you?—Mr. Bailie—Not one.

Mrs. Gully's solicitor said, that Mr. Bailie had omitted some important facts in his statement. Mrs. Gully was the owner of the soil in Cornwall in which the mine was to be worked, and had consented to dispose of it for the mining speculation, and Mr. Bailie and his friends were to raise the company, by means of which it was to be brought into operation. Now Mr. Bailie well knew that he had consented to sign the deed. Mrs. Gully had acted throughout irreproachably, and would, on a future day, produce the documents necessary to show that Mr. Bailie was prominently concerned in the speculation of "Wheal Trevenon," and that her conduct was legally and morally correct.

Mr. Humphreys stated that there was no company at all; that no shares had been issued, and that of course there could be no justification of the course adopted towards his client.

Alderman PIRIE—Is there any deed at all?—Mr. Bailie—Not to my knowledge.—Mrs. Gully said that there certainly was a deed, but it was in Cornwall. She declared that she had taken the mine of the solicitor of the lord of the soil of the manor in which it lay, for so much dues, and she came to London to form a company, having been informed that there was great probability that the working would turn out advantageously. Mr. Bailie entered into the speculation at once, and had consented to take twenty-five shares, and she accordingly gave him the transfer for that number, on which it was agreed that 4*l*. per share should be paid to work the mine. She was herself to keep fifty shares, and Mr. Bailie's 50*l*. bill was in part payment of those which had been transferred to him.

Alderman PIRIE—How many shares were taken altogether?—Mrs. Gully—125. The party of whom I took the mine is a man of great affluence and high respectability. Here the lady exhibited a book, which contained resolutions, said to be those of meetings of the company, which meetings were not attended by more than four or five persons, according to her admission.

Alderman PIRIE said that the deed must be produced as soon as possible, and other information must be supplied to him on the subject, before the impression upon his mind could be removed that the whole of the transaction was discreditable.—The subject will be resumed before the alderman on Thursday next.

SPECIFICATIONS OF RECENT PATENTS.

[From the *Inventors' Advocate.*]

G. A. Gilbert, gent., late of Southampton-buildings, Middlesex, but now of Norfolk-house, Battersea, Surrey, for certain improvements in machinery or apparatus for obtaining and applying motive power, March 10. Claim.—The mode or method of producing motive power, by the use of steam, gas, or any other fluid, conjointly or separately, as herein described.

This invention consists in certain novel features in the construction of engines, to be moved by steam, air, gas, or other elastic fluid, whereby the cylinder hitherto employed is dispensed with, and in its place certain tubes are substituted, which slide one within the other, in the same manner as the tubes of a telescope.

That part of the engine which is intended as a substitute for the ordinary cylinder consists of two tubes; one end of each of which is bolted to a steam-box or chamber, which is divided in the middle into two compartments. These tubes slide on stationary tubes affixed to the frame-work, and there are stuffing-boxes formed on or attached to the ends of them, to keep the joints steam-tight. There are two cocks at the under part of the steam-chamber, which are for the purpose of allowing the steam, &c., contained therein to escape, previous to setting the engine to work. The steam is admitted into the tubes and allowed to escape therefrom by valves of the ordinary construction. The steam-chamber and sliding tubes are mounted on pulleys or anti-friction rollers, which run in grooves formed in the frame-work.

The following is the operation of the machine:—The steam, on being admitted at one end of the machine, rushes through the tubes into the steam-chamber; there exerting its elastic force against the partition of the chamber, it forces it forward to the allotted distance. The exit valve, at that end at which it entered, is now opened, and the steam being admitted at the other end of the machine, acts upon the steam-chamber in a reverse direction, and forces the waste steam out of the tubes.

The reciprocating movement of the chamber and tubes is converted into a rotary movement in the following manner:—Connecting rods are attached to the steam-chamber by means of pivots, and the reverse ends of these rods are connected to the crank of the main shaft, which is mounted in plummer boxes. From the shaft the moving power is communicated by a pulley and band, governed by a fly-wheel for the purpose of driving other machinery.

[From the *Mechanics' Magazine.*]

William Henry Fox Talbot, Esq., Lacock-abbey, Wilts, for improvements in producing or obtaining motive power, April 1.—A strong metallic vessel is provided, of the ever memorable "black bottle" shape, the part corresponding to the neck of the bottle, being a cylinder fitted with a piston, and the ordinary appendages for communicating motion to a crank shaft in the usual manner. This vessel is filled about half way up with water, or with water slightly acidulated to facilitate its decomposition. A pair of wires enter that part of the vessel which is occupied by the fluid, on opposite sides, and terminate in two metal plates a short distance apart. These wires are to be properly insulated at their insertion into the containing vessel. Above the part occupied by the fluid, there are another pair of wires, connected together by a very fine wire of platinum. The upper and lower pair of wires are alternately connected with, and disconnected from the positive and negative poles of a galvanic battery; the ends of the wires terminate in springs which press upon the circumference of a revolving metal shaft upon which a fly-wheel is mounted; part of the metal is removed from the circumference in places, and filled up with wood, brass, or other non-conducting medium, so that the springs continually pressing upon the revolving surface are alternately in, and out of connection with the battery.

By means of this arrangement an electric current is first passed through the lowest pair of wires, which being spread over the extended surfaces of the two plates, decomposes the water, oxygen being evolved from the one plate and hydrogen from the other; this connection is then, by the revolution of the shaft, broken, and the current passed through the upper pair of wires, when the platinum wire becomes red hot and inflames the gases. The evolution of the gases caused an upward, and the explosion produces a downward, motion of the piston.

A second arrangement for producing power, is described as follows:—A large soft iron horse-shoe, surrounded with bobbin wires, is placed perpendicularly in a square case or frame, to the top of which a long lever is jointed; at a short distance from this fulcrum an armature is attached. At the other end of the lever there is a small hair through which passes a connecting rod from the crank shaft of a fly wheel; this rod terminates in a knob or stop, so that as the crank approaches the upper part of its circuit the lever and armature is raised; but as the armature has but a very limited range of motion, as the crank descends the armature rests upon the horse-shoe, and the connecting rod continues its progress passing freely downwards through the hole in the lever.

Two wires proceed from the helix to the opposite poles of a battery, the connection with which is made and broken by a revolving shaft as before. On the connection being made, and the crank being in its highest position, the horse-shoe becomes magnetic and strongly attracts the armature which brings down the lever, crank, &c.; as soon as the armature is in contact with the magnet it stops, but the crank continues its motion, and the electric current is broken, leaving the armature free to be raised by the impetus originally communicated to the fly-wheel. In the same way a succession of magnets and armatures may be so arranged as to act one after the other, and constitute a continuous force throughout the whole downward motion of the crank.

Another mode of producing power, set forth, consists of an inverted syphon, the left leg of which is cylindrical and fitted with a piston; the lower part of the syphon is filled with oil, water, mercury, or other dense fluid; the upper part of the right leg is filled with carbonic acid or other gas. By means of suitable wires an electric current is capable of being passed through this fluid, by which it is heated, and, expanding, raises the piston. As the piston reaching the top of its stroke the electric current is broken, and the gas contracting to its original limit, permits the piston to descend, when it is again raised by the same means as before.

The claim is to—1. The method of obtaining motive power by the alternate evolution and combustion or explosion of gases, the said evolution being caused by the decomposition of a liquid by the voltaic current, and the said explosion being also caused by a voltaic current.

2. The disengaging the armature from the rest of the engine at the proper moment for obtaining the above mentioned effects.

3. The employing of the mutual attraction of an armature and magnet so as to bring a second armature and magnet within the influence of their mutual attraction (the first armature being stopped without impediment to the action of the engine) and similarly the employing the two first ones to bring a third armature and magnet within the influence of their mutual attraction, and so on in succession for any larger number. Thus augmenting the (otherwise small) distance to which magnetic attraction (of a powerful kind) extends itself.

4. The method of obtaining motive power by the pressure of gas, or liquid, or the vapour of liquid, or any of these combined; such pressure being caused by heat communicated to them internally, and then withdrawn, or diminished at regular intervals, by means of a voltaic battery.

NEW MODE OF PROPULSION.

BY JOSEPH SCOTT.

The following is a description of an important improvement in machinery, constituting a new mode of applying stationary power, of all sorts and kinds, for the propulsion of carriages on rail or common roads, on the level, and on inclines, however steep, and also for raising and lowering weights perpendicular, for which a patent has been taken out by the inventor.

The construction of the said improvements in machinery for the propulsion of carriages on rail or stone roads, consists of a continuous line of cog wheels (which may be termed, by way of distinction, propelling wheels)—say eighteen or twenty-four inches in diameter, working in standards, firmly fixed to sleepers along the centre of the line, and at distances apart, as hereinaftermentioned, and are worked by either of the four following methods:—

1. With cranks fixed at each end of their axles, at right angles, and connected together on both sides by side rods.

2. By fitting up the space between the propelling wheels by a number of smaller cog wheels, proper to give the propelling ones the right turn.

3. By a continuous side line of small cog wheels, and of such a number as to bring one of them to fix on one end of the axle of each propelling wheel; the axles of the others work in two rails, fixed to the upper ends of the standards; or this line may be made to work directly under the propelling wheels, in a brick or stone trench.*

4. (And most simple method)—By square-linked flat chains, the two ends welded or rivetted together, forming an endless chain, and one of these chains to each space, first on one side, and then the other, and so on alternately the whole line, with exceptions where necessary. These chains encircling drums, fluted on their rims, or made with catches for the open links of the chains to work in, and these drums to be fixed close to, and on both sides of the propelling wheels, on their axles. The space on each side of the line that is not occupied by these chains, an iron rod stay is fixed, one end of it to the upper end of the cog wheel standards, and the other tapped with nut and screw, is to pass through an oak post, six inches square, firmly fixed on both sides of the line, midway between the propelling wheel standards; these rods keep the standards in their right position, when the chains on the opposite side are at work, and if the weight of the chain is not sufficient to keep them tight on the drums, rollers in a screw frame may be fixed on the chain side of the oak posts, and by turning the screws the rollers press down the chains, making them tight on the drums. But the main and principal use of the posts is for guiding and preserving the trains on the line, as will be hereafter shown.

The continuous line of propelling cog wheels are made to revolve by another cog wheel, which may be termed a driving wheel, which works into the lower edge of one of the said propelling wheels; the horizontal shaft on which it is fixed runs across on the underside of the iron rails or stone, and is connected to the stationary power by another cog wheel, which works into the fly cog wheel of the fixed propelling power, which is erected on the side of the road, and at a proper distance from the iron rails or stone line, if a substitute for iron rails.

The next thing required is a four-wheeled pioneer carriage, or what may be termed a conducting machine, which must be made of sufficient strength and weight, according to purpose required, and on its underside, in the middle, is attached an iron cog bar, the length of the machine, or nearly so, and of sufficient strength and weight, which works on and into the continuous line of propelling cog wheels; the machine being made of a right height for that purpose, and by the revolutions of the said continuous line of propelling cog wheels, the machine is propelled from one wheel to another throughout the whole line, and by it all carriages attached are drawn, and at whatever speed the stationary power employed is able to perform.

The machine is also designed to carry luggage and two attendants, and may be made of any reasonable length—the longer it is the fewer propelling cog wheels, &c., to it (constituting the continuous line) are wanted; and, say, if twenty feet long, the propelling wheels would then be about six yards from axle to axle. In consequence of the inequalities of the iron rails or stone lines, the cog bar is so fixed to the underside of the machine as to allow it to rise and sink, when required by such inequalities, by strong worm springs fixed on its upper side, which also, at the moment the first tooth strikes the cog wheel in going on it, rises sufficiently to admit it on free from injurious force. The bar hanging by a sufficiently strong pivot in the centre, which works in two perpendicular grooves. The wheels of the machine, and also all carriages attached, must have each its own separate axle, so that each wheel may make its own right and proper revolutions in turning circular parts of the line.

The force of propulsion and velocity is according to the strength of the fixed power employed. The machine does not depend on the adhesion of its wheels to the iron rails, as does the locomotive steam power—consequently, no gliding or false turns, the earth being the fulcrum for its propelling power, and tremendous power may be used if necessary for this new mode of propulsion, the application of it to any one of the continuous line of cog wheels, as aforestated by a driving wheel, is so simple and easy, the whole invention being on the principle of the timber jack, consequently, easy of construction, moderate in expense, and, what is best of all, it is next to impossible any serious accident can happen, though parts of the machinery should break, as provision against such results is easy of adoption. Animals are not likely to be in the way, for if once on, the revolving of the propelling wheels would in a moment start them, night or day, and taking into the account the erections standing at distances on the side of the line, for the stationary propelling power and business stations, a long line of rail or stone road may be managed with the greatest correctness and safety to people travelling thereon, by this new mode of propulsion; and, assuming from drawings and models the patentee has made, the machinery will work admirable. And the most economical and cheapest road for it will be by having two distinct lines of convex granite paving, about eighteen inches wide, laid fair on the surface, with a line of continuous cog wheels, and worked as aforestated in the third and fourth methods, and in order to preserve the machine and all its train on the line, upright rollers must be fixed on the upper ends of all the cog wheel standards, and the oak guiding posts on their front sides. And to the underside of the machine, and all vehicles attached, there must be two planks, one on each side, the length of the machine, say about eight inches wide and three inches thick, lined on their inner sides with stout iron sheeting, and fixed by strong irons well bended to the bodies of the same, and so low down as to bring their lower edges about four inches below the aforesaid rollers, whether for iron rails or stone lines.

By this mode of transit, a line of great traffic may be conducted as exactly to time, that by having outlets of short lines at different stations, and worked by separate fixed power to each such outlet, a double line of road would not be necessary.†

It is aforestated that the invention is on the principle of the timber jack, and, in order to show a similarity, please one firmly behind a train horizontally, turn the handle, the train is forced on, just as much as the length of

* Millions of these continuous lines of cog wheels can be secured from injury by a covering, which the second method cannot—consequently, that is subject to damage by evil-disposed persons lodging stones, &c., on the wheels, which, on their revolving, would be drawn in, and cause a breakage.

† If the centre course of each line of stone was paved with blocks of best Baltic fir timber, endways of their grain, by this additional expense a most beautiful elastic road would be obtained for the train to run on.

the cogged bar is worked out; but this new propelling jack, if kept going, will force the same on as far as a line of continuous cog wheels is laid, whether up hill or down, and at just such a pace, either backwards or forwards, as the stationary power is able to perform, and that is the difference between this new invented jack and a timber jack.

In respect to ascending and descending steep inclines, though the stationary power which propels a train up is able to let the same down, but for the greater safety both ways, there should be fixed a double number of propelling wheels, in lieu of the oak posts, so that the cog bar may have full hold of two such wheels, invariably up or down such steep; and also for farther safety, the guiding planks that are fixed under the machine should have strong knuckles in their irons, and by strong screw levers fixed one on each side of the body of the machine, by this means the said planks may be pressed so hard to the rollers of the cog wheel standards as to stop the trains whether in descending or ascending such incline. And in respect to getting fresh machines and carriages on the line at the different stations, sufficient openings must be left in the continuous line of cog wheels, &c., above ground, and such portion must be constructed to work below the surface, by connecting cog wheels, in a brick or stone pit, and covered over with planks or stone slabs. And at all intersections of cross lines into a main line, there must be a discontinuance of the continuous line of cog wheels for a short space, and a stand-up edging of iron or stone must be fixed for to guide the wheels of the machine and carriages in the direction they are required to go, calculating on the fixed power at such intersections to be quite sufficient for to drive the machine and its train over such space on to such main or cross line, which line must have its own stationary power ready for propelling the whole train on.

Portable machines may be made in convenient lengths for moving from place to place, for raising materials out of quarries, and on scaffolding in the erection of large buildings, for mining purposes, in getting the materials to the pit shafts, for raising of water, for landing of goods, &c., from vessels where the tide leaves them some distance from the piers or banks, for sawing wood with circular saws, the wood being made fast, and the saw is made to advance the length of the longest log or board required, revolving on its horizontal axle, as it advances, and for many more purposes too numerous here to mention.

For a portable machine to work persons or materials up or down in a perpendicular direction, it only requires an upright square frame, the inside opening to be parallel the whole way up, and made to any height in proportion to the size of its base, where it is required to stand unattached to any fixture, with a line of continuous cog wheels about four or six inches diameter, fixed up the centre on one side of the said frame, and two light iron rails fixed up on the opposite inner side, and worked by a cog wheel and windlass near the bottom. A square box for to work up and down on the inside of the said upright frame, having four small wheels fixed to one face of the box for to run on the said iron rails, and a cog bar to be fixed on the opposite face to work into the continuous line of cog wheels, and by turning the windlass the box with its contents is made to ascend and descend at pleasure.

And on the principle of this machinery an instrument may be made, by which a very pleasing representation may be given of the earth's annual and diurnal motions, which can be shown by a circle of continuous cog wheels in a circular frame, with a short circular cog bar to work in and on the said wheels, and one rim of the said frame to be teethed, for a small perpendicular cog wheel to work in and on ditto; and the said wheel to work into an horizontal toothed wheel, which is fixed on a perpendicular axle, with a globe on the top of it, and these two wheels and the globe are fixed in a frame which is also fixed on the top side of the circular cog bar, which runs in a groove in the circular frame, with friction rollers attached on its edges and upper side, and by turning the driving wheel the globe is seat round the circle either way, the globe also at the same time turning on its axle; consequently, the globe going round the horizontal circular frame represents its annual, and the revolving of the globe on the perpendicular axle (in the frame as fixed on the back of the cog bar) represents its diurnal motion.

Great Bowden, near Market Harborough.

MINING CORRESPONDENCE.

ENGLISH MINES.

HOLMBUSH MINING COMPANY.

April 19.—I beg leave to inform you that the lode in the 110 fathom level west is six inches wide, and yielding a small proportion of ore. In the 100 fathom level west the lode continues both in size and quality much as for some weeks past—eighteen inches wide, and worth 35*l.* per fathom. The lode in the stopes, in the back of this level, is fifteen inches wide, and worth 20*l.* per fathom. In the ninety fathom level west the lode is sixteen inches wide, and worth 13*l.* per fathom. In the rise, in the back of the eighty fathom level, the ground is still moderate. In this level, driving east of Wall's shaft, the lode is two feet wide, composed chiefly of mundic and spar. The lode in the eastern stopes, in back of the eighty fathom level, is fifteen inches wide, and worth 18*l.* per fathom. The lode in the western stopes, in back of ditto, is twenty inches wide, and worth 32*l.* per fathom. In the seventy fathom level, eastern stopes, the lode is eighteen inches wide, and worth about 27*l.* per fathom. The lode in the western stopes, in back of ditto, is still about eighteen inches wide, and worth 28*l.* per fathom. In the seventy fathom level, east of Wall's shaft, on the Flap-jack lode, the men have been employed since the commencement driving by the side of the lode—consequently, nothing at present can be said of its size or quality. The cross-cut to Hitchins's shaft, at the sixty fathom level, and rise in back of ditto, against Bray's shaft, are without alteration—still progressing in moderate ground. The tribute pitches, upon the whole, are still looking favourable.

F. Phillips.

TRETOIL MINING COMPANY.

April 19.—The lode in the engine-shaft, sinking under the forty fathom level, is about eighteen inches wide, producing some ore. The lode in the forty fathom level, west of engine-shaft, is nine inches wide, unproductive. The lode in the forty fathom level, east of engine-shaft, is nine inches wide, tribute ground. The lode in the thirty fathom level, east of engine shaft, is small and unproductive. The lode in a rise, in the back of this level, is nine inches wide, tribute ground. The lode in the twenty fathom level, east of Williams's shaft, is nine inches wide, good tribute ground. The lode in the rise, in the back of the ten fathom level, east of Williams's shaft, is one foot wide, very good tribute ground. Tregellas's lode, at the adit level, west of Johns's shaft, is eighteen inches wide, producing some good ore, in a leader two or three inches wide. The part of the Mine Park lode we are driving on, at the adit level, is at present unproductive.

H. Williams. J. Morcom.

WHEAL LEEDS MINING COMPANY.

April 17.—Eighty Fathom Level East—One foot wide, composed of ore and spar, very kindly. Sixty Fathom Level East—Lode one foot wide; the slide has disappeared, and the lode is improving in size and quality. Fifty Fathom Level East—Lode six inches wide, good ore. Cross-cut at Forty Fathom Level—Ground is a little improved. Stopes, in back of Sixty Fathom Level East—Lode eighteen inches wide, producing one ton and a quarter of ore per fathom. The tributers are working well.

C. H. Richards.

WEST WHEAL JEWEL MINING ASSOCIATION.

April 19.—The ground in Buckingham's engine-shaft is very hard. Fifty-seven Fathom Level East, on the South Branch—This branch is divided into two parts by a horse, and are now about four feet asunder. The part we are driving on is four inches wide: the ground in this level is more favourable. The forty-two east, on the south lode, is ten inches wide, and worth 3*l.* per fathom. The thirty west, on this lode, has not been taken down during the week. The winze sinking under the twenty fathom level is worth 7*l.* per fathom. The thirty west, on Wheal Jewel lode, has not been taken down. The twelve west is eighteen inches wide, composed of gossan, spar, and stones of grey ore. In the deep adit west, this lode is worth 6*l.* per fathom; and rising in the back of the level it is worth 20*l.* per fathom.

S. Lean.

TRELEIGH CONSOLS MINING COMPANY.

April 17.—The seventy, east of Christoe shaft, is now about eighteen inches wide, all saving work—worth at least 10*l.* per fathom. The seventy west is now into the cross-course, consequently without any lode at present. The sixty west is settled, and producing stones of ore, though not enough to value. The fifty west continues a good lode, about five feet wide, composed of spar and ore, and worth 10*l.* per fathom. The fifty east is improving, being eighteen inches wide, with good stones of ore. The lode in Good Fortune shaft continues—worth 12*l.* per fathom in sinking. The thirty-four fathom level is looking better, but nothing to value at present. The twenty is large, and producing ore throughout, but not rich.

W. Sincock.

TAMAR SILVER-LEAD MINING COMPANY.

April 19.—As our settling is so near at hand, when Captain Rowe will give you his monthly report, I have only to say that the prospects in the different levels are much the same as stated last week, and we expect to sample next week from fifty-five to fifty-six tons of rich silver-lead ores, which will include from the steam stamps about twelve tons.

Mark James.

REDMOOR CONSOLIDATED MINING COMPANY.

April 19.—The north engine-shaft is sunk below the fifty fathom level about 1 fm. 3 ft. 6 in.; the ground for sinking has not improved since last report. The fifty fathom level cross-cut, south of engine-shaft, is driven about four fathoms, ground moderate. The great south lode, at the forty fathom level, is still unproductive; its size and underlay, however, has continued nearly the same from the commencement—say eighteen inches wide, underlaying north about three feet *per* fathom. At the thirty fathom level driving west on the middle lode, we find it about eighteen inches, producing stones of ore, mixed with mundic and jack. In driving west from the winze at this level, on the new lode, we are still opening good tribute ground; lode from fifteen to eighteen inches big, yielding about one and a half ton of copper ore per fathom. At this level going south, on the silver-lead lode, appearances are not so favourable as for some weeks' past, in consequence of passing through a hard floor of ground; lode at present is from six to eight inches in width, saving work for lead ores. The ground at Huri-down cross-cut is quite as favourable as can be desired. We have driven about eleven fathoms north of the engine-shaft. The tributers are still breaking a small portion both of lead and copper ores. During the present month we calculate having broken about one and a half ton of lead and five tons of copper ore, of good quality. We sampled at Calstock, on the 16th inst., No. 1, 4 tons 3 cwt.; No. 2, 9 tons of copper ores. We have also ready for sale at Halton Quay about eight tons of lead ore—viz., No. 1, 6 tons, No. 2, 2 tons.

Mark James.

UNITED HILLS MINING COMPANY.

April 20.—Adit End East—In this end the lode is about two feet wide, coarse in quality. Adit End West—No lode discovered as yet in this cross-cut. Ten Fathom Level—Lode three feet wide, chiefly composed of mundic and spar. Twenty Fathom Level—Lode one foot wide, producing some good ore. Thirty-six Fathom Level—There is no alteration in this end since last reported. Forty Fathom Level—Lode four feet wide, a little improved for ore since last week. Fifty Fathom Level, east of Williams's Shaft—The lode is three feet wide, with but little ore. West of Williams's shaft the lode is three feet wide, two feet good ore. Sixty Fathom Level—There is no alteration in either of these ends since last week. Sampled 350 tons of copper ore.

C. Penrose.

TINCROFT MINING COMPANY.

April 20.—I beg to hand you my report of the appearances of this mine—viz., the lode in the engine-shaft continues large and good for tin, and worth from 40*l.* to 50*l.* per fathom. The lode in the 142 fathom level east is very large, producing inferior quality tin stuff, and promising. The lode in the same level west is about three feet wide, worth 12*l.* or 15*l.* per fathom for tin and copper ore. Our pitches in back and bottom of this level continue to yield good quality tin stuff, with some copper ore. The 120 east continues to yield good work for copper ore, with some tin—worth 12*l.* or 15*l.* per fathom. The lode in the winze sinking under the 110 has very much the same appearance as the end, both for tin and ore. The 100 end is still passing through the cross-course, which, from the large quantity of water proceeding from it, is very troublesome. The ninety end will at present produce two and a half tons of copper ore per fathom, with good work for tin on the north part of the lode. The eighty-one and seventy-two are yielding good work for tin and copper ore—improved since my last.

W. Paul.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY.

Extracts from Mr. Herring's Reports.

Feb. 7.—*Costs.*—The principal reduction will be, as I before stated, effected by the erection of a hauling machine. In other respects no great reduction of costs is to be made.

Mines.—I have already said the mines are not at present in a very favourable position for supplying a large quantity of ore with facility. The lode has not risen so much above the tramroad as was anticipated, though at present the lode is higher than our end—how much we do not know. We have now no time to continue our exploration. The stamps, and sinking the Gamba and Bahu Mines, engage all our attention, and these must be pushed as hard as we can drive at them.

Arrastres.—These are as previously advised, in *statu quo*, for the reason assigned.

Produce for January 6692 oits. 50 grs.; this is the result from the reduction report of stamping 2138 tons of ore, the largest amount of stone ever stamped in one month. I do not believe the stamping account to be correct, nor that for December; I have reason to think we much overrated the quantity of stone stamped. It shall be tested, for I will place an European on the spalling floor to ensure the accuracy of measurement. The Champion ore, up to the present time, is miserably poor. In the whole there has been stamped some 400 tons of this ore during the month. To be thrown on such ores as these for supplies is very trying. Last Sunday completely cleared out all the stamps, and the greater part of the week we have had only forty-two heads working. There has been no drawing at the Crickett shaft, the roller for the kibble not yet being completed for want of smith's work, which has been much retarded from a deficiency of charcoal, the violent rains having of late destroyed our pits. I hope this month to see the Bahu pumps rearranged, and then the sinking will go on well, to bring the lower mine into order again. The Champion Mine has been very poor indeed, the white stone not having yet been stoped through. I hope Captain Bennett's view of the subject is the correct one—I believe it is, but I am not sure; the westernmost stope in the lower mines ought to correspond to the part of the lode we are now stoping above, and I intend stamping this lower stone separately as soon as Cricketti's shaft begins working again. We have had a shorter supply of ore than usual from the Gamba, which has also traded to diminish the produce; next month they may begin laying down the tramroad in this mine, sinking nor stoping will not go on well until this is done. The mechanics have been occupied principally on work for the mine, to which everything else is secondary. *Mine Report.*

Bahu Sump-shaft.—Sunk this month 2 ft. 6 in. Total vertical depth from new brace 30 fms. 1 ft. 4 in. Total horizontal length of the United Mines, 97 fms. 5 ft. 3 in. Bahu stopes are three in number; the sump on bottom stope yields but little ore as yet, but will soon have entered into better ground.

Quebra Panella stopes are two in number, but we are only working in one, in consequence of getting the mines into order, which the leaving of the arch occasioned to be wrought out of good order, but we shall by-and-by set it all to rights again.

West Quebra Panella.—We have but three good working stopes as yet, but, by the end of the month, hope to make two more.

Champion Mine.—We are carrying on a shaft of twenty-four feet of lode in two stopes, as the tram waggon takes the ore from the stopes we find it the best way to carry on high stopes. The stone, I am informed, does not show well; I am not alarmed about it. A large mass of grey stone on one side of the lode has been broken, but we know that it does not last deep, as we have already worked on the corresponding part of the lode below, where the lode is very good.

Reduction Report.

The produce for the quantity of mineral shown in the summary to have been stamped is not as good as in some of the preceding months, but, there having been but little stone stamped from the Gamba Mine, and also from the very poor quality of the stone coming at present from the Champion Mine, is the cause of its not being better. 24·16 tons of this last-named ore has been stamped, and reduced separately; it gave only 388·12 oits. of gold—1·46 oits. per ton; this is very poor, but in the course of a short time it is expected that this mine will produce better ores.

C. Herring, Jun.

MINE ACCIDENTS.

Newcastle-upon-Tyne, Wednesday, April 21.

Sir,—A most appalling accident occurred on Monday last, at Willington Colliery, near this town, the property of Matthew Bell, Esq., and Co. The colliery has been lately established on the Benshaw seam, when on Monday last a most sudden and unlooked-for explosion took place, whereby great destruction was done to the colliery, and upwards of thirty lives lost—some few were got out alive, but soon after died. As no person has escaped, the cause of the accident is not likely ever to be discovered. The bodies are not all recovered yet, great time and labour being required to reinstate the air-course sufficiently, as to enable persons to exist amongst the noxious gases and after-damp. Until a coroner's inquest be held little light can be thrown upon the subject. D.

Whitley Colliery.—On Tuesday week an explosion of fire-damp took place in Whitley Colliery, by which the under-viewer, Mr. Clavering, was so much burnt, as to cause his death on the following day.

Warren Pits, Thorncliffe.—As James Stacy was working along with several others, at the Warren ironstone pits, Thorncliffe, in the occupation of Messrs. Chambers, Newton, and Co., a quantity of earth and shale fell from the roof of the pit upon him; exertion was instantly made to clear away the rubbish, but the deceased was not extricated until life was extinct.

Artesian Well at Grenelle.—The waters which have continued to flow without ceasing from the Artesian well, at the abattoir of Grenelle, are subject to great changes in their purity, and the savans are paying great attention to this subject. On Saturday at noon these waters were almost as clear as the waters of the Seine; the day before on the contrary, according to the account of M. Mulot himself, the water was almost as black as that of the sewers.

The Sulphur Question.—The Neapolitan correspondent of the *Morning Herald* writes on the 30th ult., that it had been arranged that the documents for finally settling the sulphur question should all be produced by the 20th of June next, and that the liquidation should take place on the 20th of December.

PROCEEDINGS OF PUBLIC COMPANIES.

BLAENAVON IRON AND COAL COMPANY.

A special general meeting of the proprietors of this company took place at the London Tavern, on Friday, the 23d inst.

Francis Warden, Esq., in the chair.

The Chairman proceeded to state, that the object of the present meeting was to adopt the annual report of the directors—it having also been made special, for the purpose of confirming or rescinding the resolutions passed on the 6th day of April, for raising the additional capital required for carrying on the works advantageously—which meeting was most numerously and highly respectably attended, deputations from the shareholders of Liverpool, and other country shareholders, being present. The resolutions passed at the last meeting were then submitted for confirmation, and carried unanimously.—The Chairman invited the most minute examination of the annual report of the directors, explanatory as it was of the affairs and prospects of the company, and courted every inquiry, while he expressed his readiness to afford any information in his power.

Mr. Evens inquired if the new shares to be raised were to be made permanent or redeemable?—The Secretary replied, that as it stood at present they were permanent.

The Chairman requested Mr. Ashwell to read his report, which he hoped would be found to afford every information to the shareholders, and more particularly to those practically acquainted with the nature of the undertaking.

Mr. Ashwell then read his report, which was very long, and went considerably into detail, by which it appeared some small losses had been sustained during his management.

Mr. Evens suggested that some plan might be adopted to prevent its recurrence in future; with regard to the bad debts, he exculpated the manager entirely from any blame, the parties being considered worthy of credit. He thought Mr. Ashwell's report ought to be made public, in justice to himself, as he was fully convinced a wrong impression existed in his neighbourhood, and possibly it might be the same elsewhere; he thought there was nothing in it that could be prejudicial to their interests, and, therefore, recommended its being printed.

It was then moved and seconded that the reports of the directors and Mr. Ashwell, also the balance-sheet, be printed and forwarded to the shareholders, which was carried unanimously.

Mr. Evens thought the proprietors were much indebted to Mr. Hill for his kind offer of assistance to their new manager, as he was sure, from his experience, no one was better qualified, and hoped they would avail themselves of it.—After some conversation of a general nature, a vote of thanks was then passed, and the meeting separated.

[In consequence of the late period at which the meeting took place, and press of matter, we regret that we are unable to furnish our readers with the reports of Mr. Ashwell and that of the directors, both of which excited much interest with the proprietors present, but will avail ourselves of the opportunity afforded in our next Number. It is only justice to the board of direction, and the officers of this company, to state that the liberal line of conduct observed by them in affording every publicity, and the openness of their conduct, forms a striking contrast to the pusillanimous and discreditable secresy observed by other iron companies.]

CAMBRIAN IRON AND SPELTER COMPANY.

An adjourned meeting of this company was held on Wednesday, the 21st inst., but, on making application for admittance, we received the usual reply—that the directors considered it of such a private nature that they were unwilling to give publicity to their proceedings.

BASTENNE AND GAUJAC BITUMEN COMPANY.

A meeting of the shareholders in the above company was held on Friday, the 23d inst., at the offices of the company, St. Mildred's court. Our reporter attended, but was refused admittance, upon the ground that the meeting was called for the purpose of taking into consideration contracts to be offered by the company, and that, if the proceedings were made public, injury might be done them, by other parties making lower tenders—otherwise, there was no objection to give publicity to their affairs.

GLOUCESTER AND BERKELEY CANAL.

An adjourned general meeting of the proprietors of this company was held at the Canal Office, Gloucester, on the 14th inst.

M. Pearman, Esq., in the chair.

A report was presented from the committee, in which they stated that "a falling off had taken place in the revenue of the company during the last six months, as compared with the corresponding period of last year, but they believed that this depression in the trade was only temporary, and that the completion of the various railways would have an advantageous influence on the interests of the company. The committee had made arrangements for opposing the Severn Navigation Bill, now before Parliament, from a conviction that its provisions would prove detrimental to the interests of the company—the expense of the opposition being equally borne by the Canal Company and the Corporation of the City of Gloucester. The works of the Canal were in good repair, and their cost of maintenance had decreased during the last six months. From the statement of the income and expenditure of the company for the six months ending the 31st March last, it appeared that the receipts amounted to 2305*l.* 7*s.*, and the disbursements to 793*l.* 2*s.* 7*d.*—leaving a balance in the company's hands of 1367*l.* 4*s.* 5*d.*"

MINING NOTICES.

[Under this head we purpose collecting such paragraphs as may appear in the provincial and other Journals, having reference to discoveries and improvements in mining operations at home and abroad. It is hardly necessary to observe, that we must not be considered to admit the correctness of the information conveyed, which, in too many instances, requires cautious investigation—the sanguine expectations of parties in some instances, and the want of honesty in others, throwing a degree of responsibility on a Journal in giving publicity to reports, which we do not intend taking upon ourselves.]

Valuable Discovery of Copper.—We understand that a very valuable vein of copper has just been discovered to the Manor of Ulpha. Report for some time was abroad that the workmen engaged a few years ago there made the discovery, but from some selfish motives immediately abandoned the working to try some other place, first taking care to cover up their treasure. In consequence of these reports, Mr. Harrison, the present lord of the manor, lately set workmen to clear away the superincumbent earth, and, after about four weeks' labour, they succeeded in discovering, from all appearance, a rich and extensive vein of ore, the further pursuit of which, we are glad to hear, he has ordered the workmen to commence. We wish him every success, and we have no doubt the inhabitants of Ulpha will do the same, for the benefit to that part of the country will be incalculable, should the works go on prosperously.—*Whitehaven Herald.*

Derbyshire Lead Mines.—Mining operations in the Peak district of Derbyshire continue with unabated vigour; notwithstanding, lead is not so well sold as it was a little time ago. A few adventurers have opened fresh adits, and have met with pretty good success. The old mines continue to hold out very well, and large quantities of ore are raised.—*Investors' Advocate.*

Mines in Southern Russia.—A letter from Odessa states that M. Hommaire de Heli (a French engineer) has lately made some important discoveries of mineral veins and coal in various parts of southern Russia. The Russian Government, through the medium of Count Woronzow, has received some memoirs drawn up by this gentleman with great satisfaction, and has given him every encouragement. On the banks of the Dnieper, M. Hommaire has found a considerable formation of ironstone. He has visited all Bessarabia and the Kherson, going up the stream that falls into the Dnieper, and has since explored the Crimea, going up the Don and Donest. In all these directions he has found abundance of vegetable and anthracite coal, sufficient for the supply of a large part of Russia, and likely to be of immense value to the Levant trade. The richest coal-field is on the shores of the Sea of Azoff, between the Dnieper and the Donest; and a great part of it is crown property. In many spots the coal crops out on the surface. M. Hommaire has been offered the direction of the works at this place; and he estimates that the coal which is fully equal to the best English, may be delivered at a port on the Dnieper or the Don at from 30 to 60 centimes the 100 kilogrammes, or from 4*s.* to 8*s.* the ton. It is believed that the Russian Government will allow this coal to be exported.—*Constitutionnel.*

Important Discovery.—The *National* states that a distinguished mineralogist has just communicated the following fact to the Editor of that Journal, which he considers most important to the commercial interests of the country:—"A wonderful discovery has just been made in the south of France. It consists of a coal-mine of 100 square leagues in extent. The coal obtained from this mine is found to be superior to the coal produced from the most celebrated collieries in existence. The south of France, Africa, Italy, Spain, and even Great Britain, will derive considerable advantage from this discovery, and the trade of the Mediterranean will be benefitted by it to an incalculable extent."

Junction of the Atlantic and Pacific.—We learn, by a letter received from New York, that the grand project of cutting through the isthmus of Panama, and of opening a communication, by means of a navigable canal, between the Pacific and the Atlantic, is at length about being carried into execution, by the French and Grenadine Company, which has been formed under the direction of M. Alphonse Morel, a French engineer. The agents of the company write that the last obstacle that remained to be overcome—securing the necessary funds—has been surmounted, and the works will be immediately commenced with vigour.

MEETINGS OF SCIENTIFIC BODIES.

IN THE ENSUING WEEK.

SOCIETY.	PLACE OF MEETING.	DAY.	HOUR.
Royal Geographical	21, Regent-street	Monday	9 P.M.
Royal Medical and Chir.	53, Berners-street	Tuesday	8½ P.M.
Civil Engineers	25, Great George-street	Tuesday	8 P.M.
Zoological	28, Leicester-square	Tuesday	8½ P.M.
Royal Botanical	49, Pall-mall	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	7½ P.M.
Royal	Somerset House	Thursday	8½ P.M.
Antiquaries	Somerset House	Thursday	8 P.M.
Bl. Society of Literature	St. Martin's-place	Thursday	4 P.M.
Royal Institution	Albemarle-street	Friday	8½ P.M.
Westminster Medical	Exeter Hall	Saturday	8 P.M.

PUBLIC COMPANIES.

MEETINGS.

Preston & Wyre R'way & Harbour	11, King William-street	April 26	1.
Newcastle-on-Tyne & Carlisle R'way	66, Close, Newcastle	27	12.
Cornwall Great United Mines	George and Vulture Tavern	29	2.
London Corn Exchange Company	Subscription Room	29	1.
New Zealand Company	Broad-street Buildings	May 1	1.
Hayter Granite Company	Scott's-yd., Bush-la., Cannon-st.	1	3.
Gas Light and Coke Company	Crown and Anchor	1	11.
Cambrian Iron and Speiter Company	21, Moorgate-street	3	12-1.
Anglo-Mexican Mint Company	9, New Broad-street	4	1.
Cheltenham & Great Western R'way	King's Head, Cirencester	4	12.
Wheal Wallis Mine	Clarence Hotel, Manchester	5	3.
Polbreen Tin and Copper Mining Co.	41, Finsbury-square	5	1-2.
Newport Docks Company	Office, Newport	6	12.
Mexican Mining Company	32, Great Winchester-street	6	2.
West Wheal Jewel Mining Ass'n	23, Threadneedle-street	10	12-1
Imperial Brazilian Mining Ass'n	London Tavern	13	1.
Imperial Continental Gas Ass'n	7, White Hart-ct., Lombard-st.	13	12.
Nat. Provincial Bank of England	112, Bishopsgate street	13	12.
Provincial Bank of Ireland	42, Old Broad-street	20	12.

CALLS.

West London and Westminster Cemetery Co.	8l.	April 28	Bouverie and Co.
Wheal Wallis Mine	5s.	May 10	Manchester & L'pool Dist. Bk.
Hungerford and Lambeth Suspension Foot Bridge Co.	2l. 10s.	15	London and County Bank.
Rio de Ancoi Gold-stream Works	10s.	22	Stone, Martin, and Co.
Cambrian Iron and Speiter Co.	2l.	June 1	London Joint-Stock Bank.

DIVIDENDS.

Tretoll Mining Company	1l. per share	6, St. Mildred's court	May 26.
Newport Gas Light Company	1l. per share	J. Matthews, Newport	—.

NOTICES TO CORRESPONDENTS.

We have to acknowledge the receipt of six specimens of the Ramadent series, and at once recognise their similitude to that previously shown in London some few weeks since. We consider the present specimens to be of earlier formation.

DURHAM COUNTY COAL COMPANY.—We shall take the necessary measures for securing a report of the proceedings of this company at their forthcoming meeting, at the same time we shall feel obliged by any communication.

IMPERIAL BRAZILIAN MINING ASSOCIATION.—"C. E. S.," Lynn.—The inquiry of our correspondent is one of that nature which we always studiously avoid answering.

Mr A. T. J. Martin's Boring and Blasting next week.

The paper on the Elementary Composition of certain species of Anthracite shall appear in our next.

Errata.—In Mr. Prideaux's paper, on Wet Assaying, inserted in our last, 3d line of the article "soda paper," *for* agglunited *read* agglutinated; 10th line of ditto, *for* 1 inch diameter *read* 1 diameter (=3.10ths of an inch). The heading, "Packing the mixed assay," should be sixteen lines lower, at "The charging of these little cartridges;" and the description of suspension of the scales should be up, adjoining the figures (1, 2, 3, 4).

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, APRIL 24, 1841.

We cannot but direct attention to the sales at Swansea on the 21st inst., amounting in all to 59,326*l.* 9s. 6d., of which amount the produce of sale of foreign ores was 56,436*l.* 3s. 6d.; Ireland 2732*l.*, and Wales 158*l.* 6s.—the foreign ores having realised, on an average, nearly 19*l.* per ton, of which those from Chili (which, we presume, came over in the shape of regulus) produced 867*l.* 10s. 6d. for 189 tons, or 30*l.* per ton—several parcels having sold at from 60*l.* to 65*l.* per ton. Looking to the announcement of sales for the 5th proximo, we find that, in addition to 2417 tons of ore from Cuba sold this week, the quantity advertised for the next ticketing amounts to 1861 tons, while from Chili there are 436 tons—making together 2297 tons, or the sales in a fortnight 5029 tons from Cuba and Chili alone, the value of which amounts to nearly 100,000*l.* The effect which sales of this magnitude must have on our home mines must, we feel assured, press itself on the consideration of Government, who, we are glad to find, have not yet introduced their threatened measure of admitting foreign ores and metals at a nominal duty. It is not necessary to offer any observation on the figures here given—to all concerned in the mining industry of Great Britain and Ireland, the reflections to which they must give rise are anything but cheering—at the same time, it must be admitted, they form a source of gratulation to those who have embarked their capital in these adventures.

An application having been made in the VICE-CHANCELLOR'S Court during the present week, for an injunction, the object of which is to restrain the directors of the "Bolanos Mining Company" from raising further capital by virtue of resolutions said to have been passed at a meeting of the proprietors, held on the 25th March last, and confirmed at a meeting subsequently held on the 14th inst., and which injunction was granted; we have endeavoured to ascertain the grounds of objection raised by the plaintiff to the carrying the resolutions into effect, and on which the application to the Court was based. As the question is one of importance, more especially at the present moment, when the attention of the Legislature is directed to Joint-Stock Companies, and, moreover, a jealous and watchful eye observable in our courts of judicature, we shall briefly go into the case before us, as appears from the affidavits filed in the cause on the part of the plaintiff. "The Bolanos Company" was formed about the year 1825, with a capital of 200,000*l.*, divided into 500 shares of 400*l.* each, and a Deed of Settlement accordingly drawn up, and executed by the respective shareholders, in which, amongst other clauses, it was provided, that it should be lawful for any special meeting of the proprietors to resolve and determine on an increase to the capital of the company, either by contribution or by the sale of new shares, provided that such increased capital should not exceed 100,000*l.*—thus limiting, under the Deed of Settlement constituting the company, the extreme capital of the company to 300,000*l.*, the deed providing that the money so raised, beyond the original capital of 200,000*l.*, should be either by way of contribution from the several shareholders, in proportion to their respective interests, or by the issue of new shares. At a meeting held in April, 1827, it was determined upon that the contemplated additional capital of 100,000*l.* should be raised by contribution amongst the proprietors, in accordance with the Deed of Settlement; and on the 27th September, in the same year, it was further resolved, that the number of the shares should be increased, by dividing each share into two equal parts, the number of shares being thus increased to 1000, of 300*l.* each (including the additional capital), on which 200*l.* per share, or the amount of the original capital, should be considered as having been subscribed—thus confirming the resolution of the preceding meeting, and prescribing the mode in which such capital should be raised; and, therefore, so far as provided by the deed, fully carrying out and exercising the powers vested in the proprietary, of increasing the capital of the company. We are thus particular on this point, as the nature of the bill, and the subject to be hereafter discussed, hinges simply on the question, whether, after the additional capital having been raised, the shareholders possess the power of issuing a further number of shares, and moreover, whether the mode resorted to for such purpose, at the meeting held on the 14th inst., was in compliance with the provisions of the deed, or, as is contended by the plaintiff in the cause, whether such course is not in direct contravention of the express stipulations of the deed under which the company is constituted.

We now proceed to the meeting of the 30th April, 1829, when a resolution was passed empowering the directors to raise amongst the proprietary a sum not exceeding 50,000*l.*, being after the rate of 50*l.* per share, payable by instalments, 10 per cent. per annum interest being paid on such advances out of the first divisible profits of the company, and giving a priority of claim for the return of capital subscribed, with interest thereon, at the same time giving to the subscribers the right of converting such advances into shares, after the rate of 300*l.* per share, or one-sixth of a share for every 50*l.* so subscribed (this further sum making the gross capital 350,000*l.*)—in which latter case the amount so converted into shares should forego all claim to priority of payment of capital advanced, or interest which might arise thereon. We next find that, in April, 1830, the number of shares were again increased, but without affecting the capital of the company, the 1000 shares being subdivided, and the number being thenceforward 2000 shares. In April, 1838, it was determined further to increase the capital by another issue of shares—the amount required being 50,000*l.*, or 25*l.* per share, which sum represented one-half share, or, in other words, to create 1000 additional shares, at the rate of 50*l.* per share, such step, it is contended, not being sanctioned or authorised by the provisions of the Deed of Settlement, in addition to which a further addition to the capital of 50,000*l.*, under similar circumstances, but at a reduced rate per share, was resolved upon in the past year, and which, in like manner, is opposed to the provisions of the Deed of Settlement.

We now approach the more important part of the question at issue, which involves points of importance as regards the construction to be placed on the terms in which the several clauses in the deed are couched, and which will, doubtless, afford ample scope for the legal ingenuity and talent of the gentlemen at the bar. It appears that, on the 18th March last past, a meeting of the proprietors was held, which was adjourned until the 25th of that month, when a series of resolutions, having for their object the raising of additional capital, and vesting the directors with extraordinary powers, were submitted—one or two of which were in the end withdrawn, and a slight, or rather, we might say, a material, alteration made in the practical working of two others. Having a copy of the resolutions before us, we will briefly run through them, noting such as appear to us to require observation. The first resolution proposed by the directors (for it must be remembered that it was with the board the several resolutions emanated), provided that all power should be vested in the board, who should appoint a commissioner to examine into the state and prospects of the company in Mexico; who should be empowered, subject only to the control and authority of the directors, to wind up the several concerns, wholly or in part, or to carry on the same; or, if deemed by him more advisable, then to sell the mines and property of the company, and to pay all claims or demands, and to remit the *surplus* (if any) to England, to be placed at the order and disposition of the board of directors.

This wholesale way of treating the property of the company, on which 400,000*l.* or 500,000*l.* had been expended, was not exactly palateable to the general body of shareholders, although considered to be unobjectionable in the opinion of the directors, and hence its withdrawal. We next come to the proposition of raising a further capital of 40,000*l.*, and the terms on which it was proposed to raise this sum appear to us the most extraordinary which we have, in our experience, met with. It is perfectly true, and this is the argument on which parties possessing the means invariably ground their opinion in favour of a tempting bait being held out in the creation of new shares, that if each shareholder take his proportionate number, that whether the price be 10*l.* per share or 100*l.* it is of little moment, as the contributions are *pro ratâ*; but, as in many instances, we find that the shareholder who has purchased at high prices, and who may have invested his all in undertakings of this nature, cannot find the means of subscribing for any additional number of shares, however reduced may be the price, or great the advantage held out; it is only fair to those so situated, that the terms on which money is raised should be of that equitable nature, which, while the object is effected, the body of shareholders at large are protected, and not the one sacrificed to the advantage of the other. We will proceed to discuss the terms in the resolution before us, first premising that the original capital was 200,000*l.*, divided into 500 shares of 400*l.* each—that subsequent resolutions increased the capital to 450,000*l.*—and that, by a subdivision of the shares in the first instance to 2000 of 150*l.* each, and the creation of others, the present number of shares is about 4000, which we assume in the absence of official documents.

On reference to the resolution, the proposition stands thus—To raise a capital, if required, of 40,000*l.*, by creation of 5000 new shares, on which 8*l.* shall be called by instalments, as may be found necessary—which 8*l.*, or whatever proportion may have been paid, shall be repaid on or before the 25th of September, 1843, out of the first profits, or from the funds and property of the company, or produce of the sale of the mines, in case of abandonment, so far as means may be afforded from such sources. That, in addition to the repayment of the capital so subscribed, at the rate of 8*l.* per share, a bonus (in lieu of interest) of 25 per cent. shall be paid, provided the capital and bonus be repaid on or before the 25th of September, 1842; and further, that should the capital not be paid on or before that period, that then 50 per cent. bonus, or 4*l.* per share, shall be paid, in addition to the 8*l.* subscribed. This, however, is not all, for we find by the tenth resolution—that besides such priority of repayment of the capital, and the bonus thereon, the proprietors of the 5000 new shares so created shall, after payment and satisfaction of such capital and bonus, be entitled to participate *pari passu* with the proprietors of the other shares in the capital, and in any of the profits or property of the company, or, in other words, the subscribers of the new capital of 40,000*l.* shall be entitled, first to the receipt of 60,000*l.*, as a return for their advance, and then further entitled to five-ninths, or 5000 shares, in the mines and property of the company, the contributors to the 450,000*l.* already expended being content, or rather made to be so, to give up more than one-half their interest to those, who, under any circumstances, are to be entitled to pre-emption of payment, with bonus of 50 per cent., and a free share to the extent of five-ninths of the property.

With so glaring a proposition as this—opposed, as it appears to us to be, to the construction which can only be put upon the meaning of the Deed of Settlement, we confess we are not surprised that the shareholders should consider the question one of sufficient magnitude to come before the VICE-CHANCELLOR. It is right, however, to observe, it is provided, that should the *directors* think fit, antecedent to the 31st August, 1842, to announce their intention to purchase and redeem the shares so created, at and after the rate of 12*l.* per share (being 8*l.* paid, with 50 per cent. bonus thereon), that the holders of the same shall be bound to accept such sum in full consideration of their claims, or thenceforward the advantages contemplated by the preceding resolution shall be considered as having been foregone by the several holders, and the money so subscribed shall be deemed as part capital of the company, and represented by the 5000 shares created by the terms of the former resolutions. Some further resolutions were also proposed, having for their object vesting authority in the board of directors to accept, on the part of the company, bills to the extent of 20,000*l.*, and further to raise, by loan or otherwise, the sum of 20,000*l.* This resolution was amended, by such acceptances or advances being confined or having reference to the money proposed to be raised by shares, so that no misunderstanding should arise, or a power be supposed to exist, whereby 80,000*l.* might be raised.

We have already devoted considerable space to the question, the agitation of which will, doubtless, have a beneficial effect, if it be only in directing the attention of shareholders to the several clauses in the Deed of Settlement under which the several companies in which they may be interested are constituted and governed, as, in many instances, we find sums of money raised by debentures, or issue of new shares at reduced rates, and alterations made in the capital of the company, which we have no hesitation in stating, are frequently not contemplated by the deed, but in direct opposition to its covenants.

We observe that the board of direction of the Miners' Company has been completely remodelled—Mr. W. R. VIGERS, a gentleman to whom the mining community are so deeply indebted for his zealous and indefatigable exertions in breaking up a monopoly, and affording protection to the helpless miner—having been appointed deputy-governor—a post which, we feel assured, he will fill not only with credit to himself, but with advantage to the proprietary. An advertisement, which appears in our columns of to-day, at once comprehends the nature and objects of the company, and the advantages likely to arise therefrom, not only by way of return on the capital embarked, but to the miner, whom it behoves to afford to it every encouragement, by sending his ores to be smelted at the Miners' Establishment. It is not many months since, when this project was first announced in the Journal, that it was deemed so impracticable as to excite but little attention, and the listlessness evinced on the part of those who, as smelters, were so much interested, from the serious effects which might be calculated upon in case of success, can only be attributed to a confidence in their strong hold of monopoly, and the known want of energy and unity on the part of the miners. It was, therefore, with surprise and alarm, that they found a small but united band opposed to them in the tin trade. Arrangements were made between the houses of FERMIN DE TASTET and Co. and VIGURS, BATTEN, and JAMES with the adventurers and agents in some of the principal mines, for smelting the tin stuff at a certain rate per ton, making cash advances, and subsequently selling the produce on commission for the benefit of the miner, and thus doing away with the middle man. The results were far more successful than could be calculated upon even by those most sanguine, and the consequence was a determination being arrived at, on the part of those interested, both as miners and smelters, and which determination has been since put in force—viz., to extend the system, by combining the smelting of copper with that of tin, and hence the arrangements entered into, which are more particularly described in the advertisement, to which we have already made reference. We are glad to find that the measure is so popular, as to have induced the holders of nearly one-half the shares to pay up 65*l.* per share, being five times the amount actually called, and thus creating a capital, in the very formation of the company, of a sum approaching little short of 400,000*l.*, or two-fifths of the capital. If, however, as we augur, that the company receives that encouragement from the miner and the capitalist which it so well merits, we see no reason why the capital should not be increased, by the extension of their works, and the several foreign mining companies availing themselves of the advantage to be acquired from the system observed in this establishment, of smelting the ores at a fixed price per ton, and selling the produce, or manufactured article, to the consumer, on account of, and for the benefit, of the miner.

When we consider the extent of the sales of foreign ores, 3016 tons, which, during the present week, amounted to no less a sum than 56,436*l.* 3s. 6d., or averaging nearly 19*l.* per ton, in addition to which the sales for 5th proximo are 2297 tons, the amount of which may be assumed at 40,000*l.*, the importance of an independent smelting establishment must be manifest to the most common observer. We trust, therefore, that the shareholders in the companies formed for working the mines of Cuba and Chili, will not only protect their own interests, but lend their aid to the extension of the works of the Miners' Company. We should be well pleased to see in the list of the Court of Assistants the names of several gentlemen who are largely interested in these adventures. Indeed, when it is reflected upon for one moment, that nearly 100,000*l.* worth of ores are sold in fourteen days in Swansea, from three or four concerns only, the difference that must arise from any economy, whether observed in the extraction, transit, or smelting of the ores, is one too serious to be allowed to pass unnoticed; while, at the same time, we may express a hope that the Miners' Smelting Company will not confine themselves to the home mines. English capital is embarked in foreign adventures; and as it is an acknowledged fact, that the rich ores of Cuba and Chili require the poorer ores of Cornwall and Ireland to form an admixture, whereby the metal is more economically extracted, and in all respects with better results, we trust that the Governor and Court of Assistants of the Miners' Company will consider that, by an amalgamation of forces as well as ores, a twofold advantage would be derived—the rich ores would help the poor, as the poor are necessary to the rich, while both rich and poor would benefit by a Free Miners' Smelting Company, holding out the advantages presented by the undertaking under notice.

How frequent have we to record the melancholy accidents which attend mining operations, but more especially in collieries where, unhappily, the loss of life is on that extended scale, that it is alone the frequency of the circumstance which renders the mind callous or insensible to what is due to that industrious and hard-working class of people—the miners and colliers of this country, to whom we are so much indebted for the proud position in which we stand as a manufacturing nation. In the present instance we make reference to a short note, transmitted by a correspondent, communicating the fatal accident at the Willington Colliery, where upwards of thirty lives were sacrificed—ascribable, we apprehend, to the want of caution which, it is too much to be feared, was the cause of the melancholy catastrophe. We await the report of the proceedings at the coroner's inquest, for, until evidence is afforded, such, indeed, as can be rendered (for, unfortunately, as our correspondent informs us, not one is left to tell the sad tale) it would not be proper to indulge in those observations which the feelings of the moment would lead us to make on this and other accidents of a like distressing nature. We cannot, however, help observing, that much good would be derivable from a legislative enactment,

enforcing certain fixed principles and standards of ventilation, and rendering it imperative on the colliery owner to protect, in every legitimate way, the lives of those who labour in his employ. The safety, not only of the collier from the effects of fire or choke damp, but the establishing a perfect ventilation underground, which is so calculated to affect his health and powers, is not the only question to which attention should be directed—the frequent snapping o ropes, and the loss of life attendant thereon, requires, where hempen ropes or chains are used, that they should be subjected from time to time to the inspection and report of district inspectors, who should transmit their reports periodically to London, where should be the central establishment or School of Mines. We feel satisfied, from continued observation, that until some such course be adopted, the lives of men will still continue to be sacrificed from want of a proper protection being afforded by the colliery proprietor to the working collier.

Under the head of "Law Intelligence," in addition to the application to the VICE-CHANCELLOR, in the case of the Bolanos Company, for an injunction to restrain the directors from raising money, and which we have noticed at some length in another article, will be found an application made for a new trial in the cause of "PETHERICK v. ENGLISH and others," a report of the hearing of which, and the verdict, which was given in favour of the plaintiff, was reported at the time in our columns. It will be in the recollection of our readers, that one of the defendants (WASKETT) resisted the action, on the grounds that he was not a shareholder, and even were he one, that in such case he was not liable, the bills of acceptance, for the payment of which the action was brought, having been accepted by the other four defendants, in their capacity as directors, or members of a committee of management. The latter offered no defence to the action—the real question at issue being, whether WASKETT, as a shareholder, was or was not legally liable for the debts of the company, of which it was clearly proved, on the trial, he was a recognised partner, having attended meetings, and taken part in the proceedings, the ground of his defence on this point being, that the shares were, with his privity and consent, standing in the name of his wife, and who was represented at the several meetings by the defendant.

Lord DENMAN, in granting the rule for a new trial, observed, that he considered, in all cases where a shareholder identified himself with the company, or that it could be proved he had taken part so as to constitute him, in the eye of the law, a *bonâ fide* shareholder, he was, undoubtedly, liable for the debts and obligations of the company of which he was proved to be a member. As, however, the question was one of importance, and that it might be strictly defined, the present action being one of the few which have been brought whereby the question is fairly tried, and as other points were raised, the rule for a new trial was granted accordingly.

In the further progress of this trial we shall narrowly watch the proceedings, as it is quite apparent to us that the defendant WASKETT is attempting to evade the payment of his proportion of debts or obligations incurred by the company in which he was a shareholder, but who would, doubtless, have been quite ready to have given a receipt, even in his wife's name, for any dividends which might have been payable.

There is a case reported in the Journal of to-day, under the head "Mansion-house," of a *Mrs.* GULLY having "done" a reverend member of King's College, Cambridge—perhaps, on the second hearing, we may learn that *Mr.* GULLY put the shares into her name; it is a pretty see-saw, but, after all, will be found, we doubt not, to be mere child's play, however dear the defendant may "pay for his whistle."

THE "PRESIDENT" STEAMER.

LIVERPOOL, FRIDAY MORNING, QUARTER PAST TEN O'CLOCK.—We continue without any news of the *President* up to this hour, and nothing can be learned respecting her by any of the ships which have reached this port during the last two tides.

The public cannot be placed too much on their guard respecting rumours of the safety of this vessel. Another hope was raised yesterday morning in the city, only to be immediately destroyed. A statement got into circulation early to this effect—that a letter had been received by Mr. F. W. Green, of St. Michael's-alley, Cornhill, bearing the Bristol postmark, on the cover of which, written in pencil, were these words—"A vessel arrived at Waterford from Bermuda brings the account of the *President* being at that island." So strong is the public interest on this subject, that on this vague authority the safety of the *President* was assumed as certain. On inquiry, it appeared that such a letter had been received, the contents of which related only to private family matters—also that such writing was on the cover, but that it bore no resemblance to that of the letter itself, and that the whole, therefore, is a hoax—the more heartless and cruel, as the gentleman to whom the letter was addressed is, we believe, the brother-in-law of Captain Roberts, the commander of the *President*. In corroboration of this, if any were needed, it may be stated that letters were received yesterday morning at Lloyd's, from the agents at Waterford and at Bristol, which make no mention of any such thing, and there has been no arrival from Bermuda at any other port. The rumour, as will readily be believed, created quite a ferment in the city.

NEW FURNACE FOR STEAM-ENGINE BOILERS.

We have this week seen a new plan of setting steam-boilers, invented by Mr. Apsey, engineer, which promises to be the means of saving a large quantity of fuel, by exposing a much larger heating surface than can be effected by the usual arrangement of steam-boiler furnaces. It is now the practice to confine the action of the heat to that part of the boiler below the water line, to prevent the boiler from being burnt by the fire on those parts where there is only steam, as would certainly be the case if the flame were allowed to touch it. Either the boiler is bricked over in the upper part, or it is covered with felt to keep in the heat, as no attempt is made to render the upper portion of the boiler part of the heating surface. Mr. Apsey's method combines the advantages of gaining an increased heating surface without incurring the danger of burning the metal. The plan he proceeds on is this:—He makes the boiler rest lengthways on a ridge of brickwork, and he builds up the furnace with a space between the bricks and the boiler to the top, where another ridge of brickwork runs along. The fire is placed at the end of one of these divisions formed under the boiler, and the chimney for the draught is at the end of the other division. The flame thus runs the length of one-half the boiler, and passes down the other half to the chimney. In order, however, to prevent the flame from touching the upper portion of the boiler, which would otherwise be exposed to it, the farthest end of the furnace is bricked up below the water line. It is in this contrivance that the chief merit of Mr. Apsey's invention consists; for as the draught at the two ends is confined below the water line, the flame will not rise higher than that point during its draught along the flue. The upper part is thus filled with heated air, which keeps up the temperature of the steam without injuring the boiler. Against this advantage is the set-off that no fire acts on the centre of the boiler; but this may be remedied by substituting an iron partition for a brick one. The saving of fuel by this plan has been tested in several boilers to which it has been applied—amounting, it is estimated, to 25 per cent. Mr. Apsey has a high-pressure steam-engine, of twelve-horse power, working the machinery in his factory in Roupel-street, Waterloo-road, which has been performing on his principle most satisfactorily for some months. The boiler in this instance is only two feet three inches in diameter and thirty feet long; but the plan is applicable to boilers of all dimensions.—*Inventors' Advocate.*

MINING COMPANY OF IRELAND.—An election took place on Friday, the 16th instant, to supply the vacancy at the board of directors, caused by the death of Cornelius Lyne, Esq. At the close of the ballot, the numbers were found to be—William Stephens, 281; Solomon Watson, 191.—Majority for Stephens, 160.

METHOD OF OBTAINING STEEL OF DIFFERENT COMPOSITIONS AND QUALITIES.

In a memoir on the manufacture of cast-steel at St. Zlataoust, the imperial manufactory of swords and of iron, situated in the southern part of the Oural Mountains, Colonel Anasof describes the processes adopted in that manufactory to produce the steel in earthen crucibles by the fusion of bars of iron and steel by means of blast-furnaces. The peculiarity of this process consists in this—that iron is put into the crucibles covered with charcoal to submit it to a kind of cementation, whilst in England steel previously cemented is employed. In other respects there is nothing new in the method adopted, but it may be serviceable to state, briefly, the means indicated by the author of the memoir of obtaining steel of different varieties in its composition and qualities. The following are his observations on this point:—The processes adopted for the fabrication of steel are sufficient to show the principal causes which tend to vary the qualities of this metal; as, for example, the quantity of carbon absorbed by the iron and the nature of the iron itself. As the first of these causes may be regulated at will, it requires no explanation, and the second need not now be considered. I will, therefore, consequently, confine myself to the rules that I have formed, which are the results of a great number of experiments. 1. The purer the iron, that is, the more free it is from other substances, the better will be the steel procured from it; but the cementation will require longer time. 2. All qualities of soft iron are not to be preferred to brittle iron, for if the hardness of the latter be caused by the carbon it contains, it is preferable to soft iron, of the same qualities, in other respects. 3. The aptitude of the iron to be converted into steel depends more on the quality of the iron ores even than on the preparation of the iron. For instance, the iron procured at Zlatsoust, from the ore extracted from the Temnick Mine, is preferred to that of all the other mines in that neighbourhood; and the iron from the iron-works of Tagilsk produces steel of a superior quality to that from Zlatsoust. 4. The steel clippings from the swords made with cemented steel produce cast-steel of a quality little superior to that of the clippings of iron. 5. The bars of iron which have been buried underground for some time produce steel of a quality superior to that obtained from iron which has been recently manufactured. This fact was known in Asia in the most ancient times, but Europeans having forgotten the lessons of their masters in metallurgy, have been in arrear of those nations, not only in the art of making the best steel, but also in the knowledge of the signs by which the perfect article can be positively ascertained. If we are well informed, one English cutler at least, Mr. Weiss, has satisfied himself of the superiority for making steel of iron which has remained a long time under water. 6. The clippings or pieces of iron which have been a long time exposed to the air produce worse steel than fresh iron. 7. The steel is of better quality when the pieces of iron are homogeneous and of equal size. 8. The steel is softer when the opening in the crucible for the proof is small, provided that the pressure of the iron be equal up to the time the lid is put on the crucible. 9. If the workman has neglected to put the lid on in time, he may render the steel of good quality by adding as much iron as is necessary to raise the metal to the proper height. 10. If at the time of the final proof the steel does not send forth sparks sufficiently bright, the evil indicated by this bad sign may be remedied by introducing through the opening of the crucible two or three pieces of iron of the weight of about half a kilogramme. 11. The fusion of the steel mixed with powdered charcoal or soot in determined proportions, and in a closed crucible, as proposed by Messrs Mushett and Breau, might, indeed, produce steel, but its degree of hardness would be much less certain than on the plan I have described. In fact, if the charcoal be in excess, the steel will become too hard; if there be not enough, the metal will be difficult to fuse, because a part of the charcoal will be volatilised. 12. The addition of other metals, such as platinum, silver, or gold, in the proportions of 1·5 to 1·2 per cent., somewhat improves the quality of the steel, but the more pure the steel is the less advantageous do such additions become. The effect of the addition of these metals consists principally in making the steel more easily forged, the proportions of carbon and iron being equal. As to brittle metals, their mixture with steel is always more or less injurious, and this becomes more apparent in proportion as the quantity of the alloy is increased.—*Moniteur Industriel.*

GOLD MINES OF OURAL.

The following table shows the quantity of gold and platina extracted from the mines of Oural during the latter half of the year 1840:—

GOLD.—CROWN MINES.	Poods	Liv.	Zolot.	
Mines of Catherinebourg	18	23	33	52-96
Zlatsoust	25	29	31	
Bobroskoff	17	10	39	
Goroblahodat	7	22	72	
Total	66	6	43	52-96
PRIVATE MINES.				
Mines of Verkh Iset—belonging to a cornet of the Zakovieff Guard	73	4	14	
Kassano and Kyschtzrme—belonging to the heirs of Rastorguieff	7	20	6	
Nijni Tahil—belonging to M. Demidoff	8	7	53	
Syssert—the heirs of Tourtchaninoff	9	26	27	
Schaitam—to Zartzoff	3	17	53	
Neviane—to M. Zakovieff	5	35	26	
Bilimbaieff—to the Countess Strugnoff	9	16	30	
Reodine—to M. Demidoff	0	1	10	
Vsévolodobliahodat—to M. Vsévolosky	6	29	11	
Krestovondvigénie—to the Princess Butera	5	34	13	
Gold Wash of Troisk—to the Hon. Counsellor Zoukoraxy and Co.	2	15	80	
Verkné Oufalesk—to M. Goubine	0	32	94	
Iltahanoff, on the property of the Tepticus—to the Lieutenant-General Jemtchougnikoff and Co.	4	12	69	
Bourzianah—belonging to the same and M. Goussiatnikoff	0	15	66	
Petropavlovsk and Voskresensk—to the secretary for Astafrieff	2	13	24	
Rostesk (district of Solikamsh, Government of Perm)—to the Countess Stroganeff and the Chamberlains Lazareff	0	12	77	
Maloistokskaia—to an *employé* in the Medjer Mines	0	4	45	
Belonging to Mme. Klubvine	0	0	74	
Gold discovered on the persons of individuals who had stolen it from private mines	0	3	75	
Total	79	18	34	
General total of gold extracted from the mines	145	24	40	76-96
PLATINA.—CROWN MINES.				
Mines of Zlatsoust	0	3	80	
Bobroskoff	0	0	17	
Total	0	3	97	
PRIVATE MINES.				
Mines of Verkh Iset	0	4	56	
Nijni Tahil	47	19	51	72-96
Kassano and Kyschtzme	0	5	21	24-96
Bilimbaieff	0	0	17	80-96
Krestovondvigénie	0	0	5	65-96
Vsévolodobliahodat	0	4	70	40-96
Neviane	0	0	95	
Platina washings—belonging to Countess Stroganeff and the Chamberlains Lazareff	0	0	13	61-96
Platina taken from individuals who had stolen it	0	5	0	
Total	48	3	74	19-96
General total of platina extracted from the mines	49	6	51	35-96

During the year 1840 the total quantity of gold extracted from the Crown and private mines of Oural amounts to 299½ poods, and 94 pounds of platina. In the district of Altai the gold mines have produced 246 poods, and those in the district of Nertchinsk 6 poods; so that in the year 1840 the quantity of gold produced amounts to 551 poods, without reckoning the gold extracted from the silver drawn from the districts of Altai and Nertchinsk, which makes the total quantity of gold, for 1840, 586 poods, being 54 poods more than in 1839.

LAND INVESTMENT COMPANY OF IRELAND.

Amongst the efforts now making to improve the condition of the population of the Sister Isle, the establishment of the "Land Investment Company of Ireland" is deserving of especial attention. The prospectus sets forth the fundamental principles upon which this company is to be established; land in large quantities is to be purchased, and afterwards sold in small portions, suitable for farms of various sizes, and the terms of purchase are arranged with due regard to the interests of the company, and to the legitimate accommodation of the occupiers. A fair profit is to be derived upon the sale; but the purchaser will be secured against anything in the shape of unjust extortion. The occupier would thus be rendered a proprietor, and so far one of the most prolific sources of misery and crime, derived from the rack-rending system and the total uncertainty of tenure, would be put an end to. This is the leading principle of this important company, which has originated with that active and intelligent gentleman, *Mr. John Reynolds*. Most wisely has it been determined that the institution shall have no connection whatever with politics—its great aim and object being the bettering of the condition of the peasantry through the judicious employment of capital. We are happy to learn that the amount of shares necessary for the constitution of the company have been already subscribed for.

ORIGINAL CORRESPONDENCE.

ANTHRACITE AND BITUMINOUS COAL OF SOUTH WALES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I am much obliged by your inserting my letter in your last week's Number, and thus affording me an opportunity of correcting some of the errors contained in the report of my lecture. I lose no time in noticing the communication of your correspondent, Mr. Lionel Brough, relative to the analyses which are given in that report of some of the coals in the South Wales mineral basin. Although there are numerous inaccuracies in the report which are not alluded to in my letter, I am happy to be able to state that the results of the analyses are, with two exceptions, correctly reported. The seams erroneously given are the Mynyddishllwyn vein, which almost exclusively supplies Newport with shipping coal, and the pit vein at Cyfarthfa Iron-Works, belonging to Wm. Crawshay, Esq. They should stand thus—

	Bitumen.	Carbon.	Ashes.
Cyfarthfa pit vein	24	89½	7
Mynyddishllwyn vein	27	68½	4½

The term "bitumen" is here employed more in the language of a popular explanation than in that of strict chemical analysis, for bitumen is a compound substance, and yields a large quantity of hydrogen and oxygen gas; the most correct designation, therefore, would, perhaps, be volatile matter. Having pointed out what is really erroneous in the table, that has called forth Mr. Brough's remarks, I shall now proceed to notice some of that gentleman's statements with reference to it. And here I may be allowed to observe, that I am perfectly satisfied of the correctness and accuracy of the results which are there given; but, perhaps, it may tend to remove some of Mr. B.'s doubts, if I mention that Mr. Mushett, whose great talent as an analytical chemist no person will, I feel assured, be disposed to question, and Mr. F. Foster, of Newcastle-upon-Tyne, have both analysed some of the coals in that table, and with results very nearly the same. As Mr. Brough, however, resides in this district, he can, of course, put them to the test of experiment, for facts will be far more satisfactory than mere assertions. In the sentence with which he commences his letter, Mr. B. states that "coal, of whatever kind or description, is valuable in proportion to the quantity of carbon it contains." Now, I apprehend that this depends entirely on the nature of the process for which it is required. But, I will suppose that he there alludes to its application in the manufacture of iron, and here again I must venture to differ from him in opinion, for I think I shall be able to show that the value of coal, for smelting purposes, cannot be correctly or safely determined by reference to the amount of carbon which it contains. The Cyfarthfa and Hirwain coals are very similar in structure; in both the anthracite principle is largely developed, and they contain, on the average, nearly the same amount of carbon—the Hirwain coals, in fact, yielding the largest quantity; but it is found in practice that the Cyfarthfa coals exceed those of Hirwain in point of capacity for smelting and carrying burden in the proportion of 80 to 50; and this fact will, I think, be sufficient to convince Mr. Brough of the fallacy of his opinion. He again writes—"The Dowlais upper four-foot vein is also stated to be composed of 85 parts of carbon in 100; this is, perhaps, still more surprising, as this seam is decidedly more bituminous than the Hirwain seams." From this passage I should imagine that he is not aware that two coals may contain precisely the same amount of volatile matter and carbon, and that one may, notwithstanding, be infinitely more binding in its nature, and yield a much more bituminous coke than the other. I am afraid to trespass too much on your valuable space, or I should take the liberty of offering a few suggestions with reference to this circumstance, and which might, perhaps, tend to elucidate the cause of so curious a result. In another part of the letter I find the following passage—"Again, the Elled vein at Nantyglo, which is essentially a bituminous coal, is alleged to contain 81¼ per cent. of carbon." I confess that I am quite unable to understand why this should have been called so emphatically an "essentially bituminous coal," for I consider that the circumstance of its containing 17¼ per cent. of bitumen is amply sufficient to prove it to be so. If I understand the meaning of the word, even the Hirwain coals are essentially bituminous, for they are capable of being converted into coke, and give out a quantity of flame.

It may not, perhaps, be out of place to mention here, for the information of such of your readers as are unacquainted with this district, that at Pontypool, which is situated on the eastern end, or crop, of the basin, the coal is highly bituminous. In tracing the seams towards the western extremity, we find that the quantity of volatile matter progressively decreases until they finally merge into anthracite; and my object in giving the composition of the coals worked at the different iron-works was to show the gradual nature of this change; and likewise, that the approach to the character of anthracite was indicated by the decrease in the amount of volatile matter contained in the coal.

The first approach to the nature of anthracite is observable in one of the strata of coals at the Rhymney Works; and at Dowlais the anthracitous structure is much more strongly developed, being clearly discernible in the four-foot forge coal. According to Mr. Mushett, this coal contains—volatile matter, 7·968; carbon, 88·782; ashes, 3·250=100. At Cyfarthfa and Hirwain again, all the seams partake, more or less, of this character, and a short distance beyond the latter works become perfectly changed into anthracite.

Your correspondent is surprised to find, that "the veins of anthracite are exceeded in amount of carbon contained in their products by the Cyfarthfa and Hirwain veins." Probably, his surprise will be increased, when I state that Mr. Mushett gives, as the result of his analysis of the Cyfarthfa Mountain vein, 92·11 per cent. of carbon, while in one of the seams of the Pulferon anthracite coal, employed by the North Abbey Company, with a mixture of coke, in smelting iron ores, he states the quantity of carbon to be only 86·24 per cent. Mr. B. has neglected to state either the name or situation of the coal analysed by Dr. Schafhaeutl. Before any comparison can justly be made, it must be evident that these points should be ascertained, for a very great difference in the component parts of coal frequently occurs in a very short distance. The Rock vein coal, at these works, yields 7 per cent. less carbon than it does at Cwm Bran, about a mile and a half to the south.

Mr. Mushett has analysed some of the seams belonging to the Ystal y Fera Company, and as I am disposed to believe these to be the coals alluded to, as having been examined by Dr. Schafhaeutl, I shall give the results of that gentleman's analyses:—

	Volatile matter.	Carbon.	Ashes.
Big vein, 1st division	7·09	91·42	1·50=100
" 2d "	5·61	92·69	1·50=100
" 3d "	6·51	91·99	1·50=100

The results obtained by Dr. Schafhaeutl are not given, it being merely stated that some of the seams examined by him yielded upwards of 92 per cent. of carbon; and it will be seen, by reference to the figures given above, that Mr. Mushett's analyses give, in one case, nearly 93 per cent.

In conclusion, I cannot help remarking, that I conceive myself to have been treated unfairly by Mr. Brough, in this case. Without having analysed either of the coals in question—without bringing forward a single fact, tending to prove the incorrectness of my statements, he boldly asserts that the results I have given must be erroneous; and I confidently appeal to you, as to whether this be a proper mode of dealing with the subject.

I am, Sir, your's, very respectfully,

Pontypool, April 19. W. LLEWELLIN, Jun.

[We are glad to find that the insertion of the correspondence on Mr. Llewellin's report has elicited a communication from that gentleman of so interesting a nature as the preceding, and which will, doubtless, be replied to by Mr. Lionel Brough. These discussions, when carried on in a candid and kindly spirit, are much to be desired, as affording the means of promulgating much useful information.]

ON MINE SURVEYING.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—As various letters on the subject of "mine surveying" have frequently of late appeared in your valuable Journal, it may be deemed irrelevent in me to enter the arena so late in the day—however, "better late than never;" and, in the present instance, I feel it an imperative duty to repel the animadversions which your correspondent, Mr. Budge, has endeavoured to heap upon a class of men of which I feel proud to be honoured with the name of member. From the "Gwennap case," and some others which have been brought forward by this learned bigot, any one unacquainted with the qualifications of the Cornish mine agents, would be led to suppose that they are an ignorant set of men, quite unqualified for their business. Whether such is the case or not, you, Mr. Editor, from your peculiar engagements in Cornwall, are fully entitled to

judge. I detest bigotry in any form, and am convinced that a want o liberality on the part of your correspondents has greatly injured the cause for which each party has contended. If half the pains which have been taken to involve the question in obscurity had been employed to develope the most correct and expeditious method, the controversy would be listened to with interest, and this much-agitated question would be rendered profitable to your numerous readers.

Your correspondents appear to have forgotten that there are two ways to do a thing. I believe no enlightened man is so stupid as to reject the accuracy of logarithmic surveying; but, at the same time, I am convinced that no candid practical surveyor can disprove that the "pegging method," which the "Budgites" are so industrious to deprecate, is not equally correct. In this neighbourhood I know of several instances, where shafts had to be sunk on levels, dialled according to the old pegging down plan, and in every case the shafts were "holed" as nicely as if all the logarithms in the world had been called into requisition. Is not this, Sir, a proof of the accuracy of the "anti-Budgite" method? But, say they, it does not admit of proof when the survey is first made. What clearer proof our opponents can adduce in favour of their position I am at a loss to discover; and I challenge them to produce a single instance, when the pegging method was conducted by a careful, skilful person, where it was known to have failed. The use of the dial for making underground surveys seems to be acknowledged by all parties. I would labour, therefore, to impress upon your readers, that if the dial is to be depended upon in one case, it must insure certainty in all. If the different angles are to be taken correctly with the dial underground, why not rely on the accuracy of the same instrument at the surface? How strenuous soever we may be in the advocacy of scientific attainments, depend upon it, if the survey be made by an experienced operator, according to the "pegging down" principle, no doubt need be entertained of the ultimate result; but if the original survey be not carefully made, trigonometry can never set it right.

Much has been said about the magnetic attraction of the needle being obstructed by iron; but it is obvious, from the experience of the very men who would stigmatise the use of the dial, that it cannot be dispensed with. Suppose, for instance, a level had been driven (say ninety fathoms), and a shaft were to be sunk to intersect it, the level were to be dialled, and the main bearing found by trigonometry—the dialler would then have to prove the main bearing at the surface with the dial, in order to ascertain the exact spot where the shaft should be sunk—so that those very identical persons actually practice the very method which they condemn. Really, Sir, this is too bad—enough of such dogmatical reasoning. I suppose they will next undertake to promulgate that the plumb line does not hang vertical—or some such nonsense. Your's, &c.

Liskeard, April 20. ——— DANMANICUS.

IMPROVED METHOD OF SMELTING IRON ORES—PREVENTION OF ACCIDENTS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I have just read in the *Mining Journal*, of the 17th instant, the account of a frightful accident which happened at Dowlais Iron-Works, to the men employed in repairing one of the blast-furnaces. I notice the subject, because I have been, for some time past, endeavouring to introduce an improved method of smelting iron ores, and it would be quite impossible that a similar accident could occur with the form of furnace I propose to adopt. Having been deprived of the benefits of several important inventions by being too communicative, I have hitherto kept this invention to myself, excepting the explanation of some separate principles, quite inefficient, if adopted alone, a successful result being only attainable by a judicious combination of the whole. I have written several letters to Sir Josiah John Guest, Bart., on the subject, to which the hon. baronet has not condescended to reply. This treatment is the more unhandsome, as I, some length of time ago, communicated to Sir John, and his factotum, Mr. Thomas Evans, my ideas as to the beneficial effects of the application of steam to melted pig-iron in the puddling furnace, for which they have since taken out a patent. Their mode of application is certainly different to that which I proposed—viz., to introduce the steam by a hollow bridge, having several small openings into the bed of the furnace, so that the steam should play over the surface of the melted iron; this plan they at once pronounced impracticable—their plan is to introduce the steam by means of what they term "telescope tubes," the principle is, at all events, quite the same. In explaining my opinions on the subject, I stated that when iron was melted in the puddling furnace the surface became oxidised, after which, when the iron was stirred, the oxygen of the oxidised surface, combined with the carbon of the lower portions, carbonic acid was formed, which, being expelled in the gaseous state by the high temperature, the iron boiled up as it does in the puddling furnace at a certain stage, in consequence of the solidified oxygen and carbon assuming the form of a multitude of small air bubbles, and I made use of the phrase, "the iron is literally in a state of fermentation." In the specification of the patent above alluded to, a notice of which appeared in the *Mining Journal* about six months since (not having the Journals by me I cannot give the date), Sir John and Mr. Evans recommend the steam to be thrown into the furnace when the iron is in a state of fermentation; I feel quite confident that the idea was original, and that I first used the term.

I have been induced to trouble you with this, in consequence of your kind indulgence upon a former occasion, but feel unwilling to intrude further at present upon the valuable space of the Journal. I shall be quite ready to go more fully into the subject whenever I feel called upon to do so. I am, Sir, your obedient servant,

Pentood, near Llanelly, April 20. T. H. LEIGHTON.

[We give insertion to Mr. Leighton's letter, which, however, appears to us in no way to bear on the late accident at Dowlais, but resolves itself into a question between Sir John Guest and himself as to improvements in the manufacture of iron. We shall be happy at all times to give insertion to Mr. Leighton's communications, but hope he will avoid personal questions, and confine himself to useful and general information.]

ON MINE SURVEYING.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I have always considered it the province of an editor of a newspaper to give insertion to articles that will afford as much instruction and amusement to his readers as he possibly can. I beg to congratulate you on your late acquisition of amusing correspondents, who have not failed to move the risible faculties of many of your numerous readers; and as it is pleasant, after a week's toil, to have a hearty laugh, where it can be innocently indulged in, I trust you will humour this spirit amongst your Welsh correspondents, and treat us with a few more of "Cambrian's" and his friend, "A Collier's," epistles. I am rather apprehensive, however, that I have put my hand in the lion's mouth, for I find that "Cambrian's" friend, "A Collier," is a more dangerous customer to contend with than I had anticipated when I ventured to address him through your columns—calling upon him to give a description of the instrument he had invented, capable of accomplishing such wonders as those stated in "Cambrian's" letter. I find that "Cambrian's" friend was not only able, by some surprising invention of his own, to do wonders in the underground dialling, or surveying department, but, by his own statement, I find that he can also produce "thunder and lightning" in those dark and dreary excavations. Surely "A Collier" is not his Satanic Majesty, who has assumed the human shape, for the purpose of persuading "Mawwer" to "come to the scratch," that he may teach him what he "never learned;" and, I may venture to say, what he never wishes to learn, if I may judge the kind of learning he is likely to get by the would-be teacher. I can hardly suppose that "Mawwer" is prepared to swallow a few thunderbolts, for the purpose of being initiated into all the mysteries of "A Collier," and be taught all his learning.

"Cambrian" did not state what the nature of his friend's invention was, except that it was a *spirit* level. His friend having stated that he were "thunder and lightning," I feel very grateful to "Cambrian" and his friend for not complying with the call I made upon them with respect to the newly-invented surveying instrument, for I will leave you to judge, Mr. Editor, what the consequences might have been, if, in the presence of my wife and family, I had opened your valuable Journal and found a young imp skipping about. Having already experienced so much kindness from "Cambrian" and his friend, may I venture to solicit one other favour? I am in the habit of going occasionally through Ruthin, and the favour I solicit is—that "A Collier" will not let off his thunderbolts at me, nor any other unlucky wight who may happen to pass, and whom he may suppose to be the writer of this, and drive us to immediate and inevitable destruction.

Does "A Collier" give any information upon the subject of mine surveying?—"No, by no means." What, then, was his object in writing his very learned epistle?—To defend his friend "Cambrian" and to abuse "'Cornubian'—grown lately in the neighbourhood like a mushroom." Will it be any consolation to "A Collier" to know that this description does not apply to me, as I am not a "Cornubian, grown lately in the neighbourhood." Let "A Collier" guess again, and when he hits the mark I will not deny it. My object in writing is not from "malice against 'Cambrian,'" nor any other person, but to prove to those who will put themselves forward to defame their neighbour's reputation, under the pretence of giving scientific information—which they are incapable of doing—that they must not expect to be allowed to escape without receiving their merited castigation. Your's, &c.,

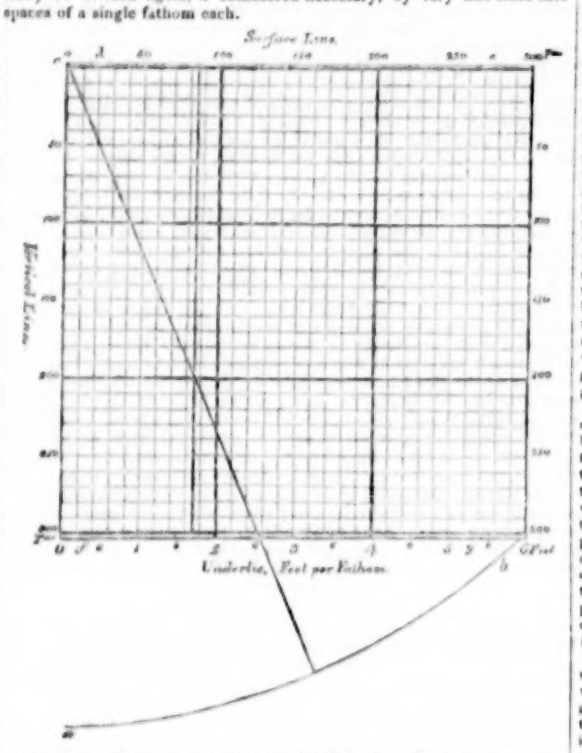
Holywell, April 21. ——— L. S.

MECHANICAL SOLUTION OF MINING PROBLEMS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I beg to send you a sketch of a little contrivance which may serve to facilitate the approximate solution of many problems frequently occurring in mining operations. The problems to which I allude, are the various relations existing between a proposed perpendicular shaft, and the lode or lodes to be intersected by it in depth, as its distance from the back of the lode at the surface, and the lengths of cross-cuts at different levels, circumstances necessarily depending on the underlie of the lode, and the depth at which the shaft is intended to cut it. These particulars can of course only be known accurately by careful dialling, but can easily be ascertained in an approximate manner by construction on paper. The mode I propose will, however, furnish them still more readily than by construction, and without the trouble, while it admits of immediate application to any variation of the case that may be supposed.

The accompanying figure represents a square of any convenient size (say ten or twelve inches), which should be constructed on a sheet of cardboard of somewhat larger dimensions. Each side of the square is divided into three equal parts, representing 100 fathoms each, and strong lines are drawn across it in both directions. These spaces are subdivided in the same manner by lines of less strength into ten fathoms, and may lastly be divided again, if considered necessary, by very fine lines into spaces of a single fathom each.



The bottom of the square is also divided into six equal parts, representing feet, and these may again be divided into spaces of six or three inches, and marked as representing the various underlies, from the perpendicular up to six feet in a fathom—an inclination very rarely exceeded. At the bottom of the square, as are *a b* is drawn from the centre *c*, through which a small hole is made. A silk thread or wire passes through the hole at *c*, and is fixed there, the other end passing across the square through a small slit or aperture made in the cardboard along the arc *a b*. It is evident, therefore, that by moving the lower end of the thread in this arc, it may immediately be placed so as to represent a lode having any required underlie less than six feet in a fathom. *d e* and *f g* are two parallel slits or apertures, the one above the other below the square, through which another silk thread is introduced, crossing it perpendicularly, and stretched tight by two little buttons fixed on the other side of the cardboard. This thread represents the shaft, and is moveable in a perpendicular direction across the square. It is evident, therefore, that the thread moving diagonally, may at once be placed so as to represent a lode having any required underlie, while the thread moving vertically representing the shaft, may, by reference to the divisions on the sides of the square, be adjusted so as to intersect it at any required depth. This having been done, the distance of the mouth of the shaft from the back of the lode may be read off on the divisions at the top of the square, which will represent the surface line, while the number of divisions intercepted between the two threads at any required depth, will at once show the length of cross-cuts proposed to be driven at the different levels, which will be indicated by the horizontal lines drawn at intervals of ten fathoms.

Let us suppose, for example, that a lode underlies two and a half feet in a fathom, and it is proposed to sink a perpendicular shaft to intersect it at the depth of 200 fathoms, at what distance from the back of the lode must the shaft be placed, and what will be the lengths of the cross-cuts at different depths—for instance, the 50, 100, 140, and 170 fathom levels? The two threads being arranged, as shown in the figure, we shall see at once that the distance of the shaft from the back of the lode will be eighty-three fathoms, and the length of the cross-cut at the fifty fathom level, sixty-two fathoms; at the 100 fathom level, forty-one fathoms; at the 140 fathom level, twenty-five fathoms, and so on. It is evident that the apparatus admits of being instantly adjusted, so as to suit any supposed case whatever, and furnishes its results at once, without any necessity either for construction or measurement. I have only to add, that it may be made by any person, with a very slight degree of trouble, and, for the reasons above stated, may, in many cases, prove useful in mining operations. I remain, Sir, your's, &c.,

FREDERICK BUSS.

[It is at the wish of several correspondents that we reprint the above letter, with the diagram, it having appeared some time since in our columns, and that number of the Journal being out of print.]

JOINT-STOCK COMPANIES IN FRANCE.—An important decision, with reference to joint-stock companies in France, has just been come to by the Tribunal of Commerce of France, in a dispute between some shareholders of the Banque Philantropique and its managers. The tribunal has declared that in every case where the the funds of the shareholders, however placed, are to be divided by way of bonus or premium, or in any other way, arising out of the deaths of shareholders, or from chance combination of any kind, the company is to be considered as a tontine, and as such must be authorised by the Government, without which all engagements entered into by the shareholders towards the projectors, managers, or conductors, are declared null and void.

WATER POWER OF ROCHESTER, U. S.—The water-power of our city is estimated to be equal to 1920 steam-engines, of 20-horse power. The river supplies about 20,000 cubic feet of water per minute, when it is at its medium level.—*Daily Advertiser.*

EVAPORATIVE POWER OF DIFFERENT KINDS OF COAL.

BY ANDREW FYFE, M.D., F.R.S.E.

[Concluded from page 127.]

Anthracite.—The analysis of several specimens of anthracite is given by Professor Johnson in the *Journal of the Franklin Institute*, Pennsylvania, of which the following is a tabular view:—

Water	3·43	3·26	0·90	2·19	0·40
Volatile matter	4·08	1·05	2·60	4·23	5·51
Fixed carbon	87·48	91·69	85·34	92·30	91·91
Ashes	5·01	4·00	5·06	1·24	3·06
	100·0	100·0	100·0	100·0	100·0

Of twelve specimens analysed by Berthier, the mean per centage of ingredients was—

Volatile matter	7·37
Fixed carbon	79·15
Ashes	13·25

A much more minute analysis of anthracite from Wales is given by Dr. Schafhaeutl, in a report submitted to the Anthracite Patent Company. The following is the composition of two samples:—

Moisture	0·00		0·300	
Carbon	92·42		94·100	
Hydrogen	3·37	Vol. matter, 5·97	2·390	Vol. matter, 4·6
Oxygen	1·43		1·336	
Nitrogen	1·65		0·874	
Sulphur	0·12		trace	
Ashes	1·61		0·932	
	100·00		99·932	
Loss			·068	
			100·00	

In these specimens the quantity of volatile matter varies from 4·31 to 9·6. It may be stated to be, on an average, about 5 per cent. The greatest amount of carbon 94·1. It is generally allowed that anthracite contains, on an average, about 92 per cent.

The coal with which my trials were made was much mixed, some parts being of good quality, others containing an admixture of impure coal, having a good deal of iron pyrites and of earthy matter. In its composition it resembled the specimens analysed by Berthier. Its specific gravity varied from 1303·5 to 1406·6. To procure an average sample for analysis, a considerable quantity was taken from the heap at random, which was bruised, and from this a smaller quantity was removed and then reduced to powder. This, on analysis, yielded—

Moisture	4·5
Volatile matter	13·3
Fixed carbon	71·4
Ashes	10·8—100·0

Anthracite of good quality burns with very little or no flame, and without smoke. When first thrown on the fire it decrepitates, and small pieces are thrown off from it, which choke up the spaces between the fire-bars and also the flues, and in a great measure prevent the combustion from going on. Though it can be burned in common grates, yet, unless consumed in some particular way, it does not answer well for raising steam, owing to the slowness of the combustion. A patent was lately taken out by Mr. Player for effecting the consumption of anthracite, by previously heating the coal, by making the part of the apparatus containing the fuel to be supplied to the furnace pass through the boiler, by which means it derives heat from the water. The method I adopted was to supply the coal with air previously warmed, which was done by making it traverse the apparatus already described, and by which the temperature was, on an average, about 350°. By this contrivance the decrepitation was almost entirely prevented, the combustion was rapid, and the steam was easily kept up. I have already mentioned that the anthracite I employed was of inferior quality; it contained not only a large quantity of ash, but also of volatile matter, the latter of which made it burn with flame, while the former, owing to the intense heat generated, formed a tough slag, which adhered firmly to the bars, and in a great measure retarded the combustion.

The trials were conducted with the coal without being picked. Numerous experiments were made with the furnace when fitted up with the flash-flues, but with this the draft was evidently deficient, and the furnace was therefore taken down and rebuilt with the returning flue, and an addition made to the chimney to bring it to the height formerly mentioned, by which I found that the evaporation was considerably increased. Being totally unacquainted with the burning of anthracite, it was necessary, before beginning to record the results of any trials with accuracy, to find out the best means of accomplishing the combustion. As good anthracite burns with little or no flame, and as, of course, there is no bituminous matter, which causes the swelling of other kinds of coal, I found that the furnace bars must be brought nearer to the bottom of the boiler, than when Scotch or English caking coal is employed. In my experiments I had them generally at the distance of about eight inches. The fuel was in general about four inches in depth, and in stoking it was thrown as equally as possible over the whole surface of the fire.

It is unnecessary to state the result of the numerous trials made after having satisfied myself that I had effected completely the combustion of the fuel. I will confine my remarks to one only, performed when the furnace was in good working condition, the pressure on the boiler being 17 lbs. It was continued from ten in the morning till half after six in the evening. Subjoined is a tabular view of the working, which will show the mode of proceeding, and the regularity with which the fuel was supplied, and how the evaporation went on:—

Time of stoking.	Fuel used.	Water evaporated in gallons.	Temp. of air to ash pit.	Cinders in ash pit.
h. m.	lbs.			lbs.
10 0	—	—	240	—
10 30	—	—	—	—
11 0	—	—	—	—
11 30	112	88	—	—
12 0	—	—	—	—
12 30	—	—	—	—
1 0	—	—	—	—
1 30	112	88	—	—
2 0	—	—	220	—
2 30	—	—	—	—
3 0	—	—	—	—
3 30	112	88	—	—
4 0	—	—	270	—
4 30	—	—	—	—
5 0	—	—	—	—
5 30	—	—	—	—
6 0	—	—	—	—
6 30	112	92	270	—
8 30	448	354	average 250	40½ lbs.

In this trial the total quantity of coal used was 448 lbs., and the evaporation amounted to 3550 lbs.; there were, therefore, evaporated 7·94 lbs. for each pound of coal. The evaporative power of this anthracite, when tried by the litharge test, was found to be 10·78, compared to that of carbon as 12·5.

Now, 10·78 — 7·94 = 2·84, and 10·78 : 2·84 :: 100 : 26·34; there was, therefore, a loss of 26·34 per cent., supposing the whole of the coal thrown into the furnace were consumed. The coal found in the ash-pit was 40·5 lbs., thus making the quantity actually consumed amount to 407·5, which would make the evaporation 8·73 for each pound of coal undergoing combustion. The evaporative power of this fuel, it has been already stated, as tried by the litharge test, was 10·78.

Now, 10·78 — 8·73 = 2·05, and 10·78 : 2·05 :: 100 : 19; there was, therefore, a loss of 19 per cent. of the total heat evolved, supposing the 407½ lbs. fuel consumed to have undergone complete combustion. With the Scotch coal the loss amounted to 28·97 per cent.

So far as I know, there is only one instance on record of the evaporation produced by anthracite, as tried by actual combustion; it is that contained in the report lately given in by Dr. Schafhaeutl to the Anthracite Company. It was conducted with coal of good quality, and with a furnace and boiler fitted up with the patent apparatus of Player, by which, as already stated, the fuel is gradually heated before it is burned, and by which, it is said, the decrepitation is prevented, and the combustion is rendered complete and effective. This coal was on analysis found to contain 92·42 per cent. of fixed carbon, 5·97 of volatile matter, and only 1·61 of ashes. Its evaporative power, calculated from its composition, is stated by Schafhaeutl to be 12·3, or the same as pure carbon. When conveyed in Player's furnace, it was found that, by the combustion of 372·28 lbs., there were evaporated 2934·9 lbs. of water, under a pressure of 13·3 lbs.—thus giving 10·56 lbs. for each pound of coal actually consumed, for in this result the cinders were deducted. This is much greater than I obtained, but the smaller amount in my trial is, I conceive, easily accounted for. The coal I used, as tested by litharge, had an evaporative power of 10·78, while that used by Dr. Schafhaeutl was 12·3. In my trial the loss of heat was 19 per cent., in the other it was only 14·1.

(12·3 — 10·56 = 1·74, and 12·3 : 1·74 :: 100 : 14·1.)

Though the amount of evaporation in my trial was small, yet there is not much difference, according to the calculated evaporative power of both—it is only 4·9 per cent. This may also, in a great measure, be accounted for. The pressure at which my trials were made was 17 lbs.—that of Schafhaeutl was 13·3; and though, as is well known, the heat necessary to convert water into steam is the same at all pressures, yet, in practice, it is allowed that the higher the pressure the greater is the heat required, owing to a loss occasioned by different circumstances. Making allowance for pressure, according to Schafhaeutl, the quantity that would have been evaporated in his trial, supposing the temperature at 212°, would be 11·11; in mine it would have been, according to the same rule, 9·39, which would make the loss of heat in the former amount to 9·4 per cent., in the latter to 17·3 per cent.,—thus giving a difference of only 3·3 per cent. As to this greater deficiency,

it was most probably owing to the inferior quality of the fuel—perhaps also owing to the defective draught of the furnace, but more particularly to the former. When, for instance, a coal contains much incombustible matter, a greater deduction must be made from the heat that is likely to be available, than in the ratio of the per centage of the non-inflammable materials, and especially if these contain metallic matter, for they then form slag on the bars, and prevent the due transmission of air through the furnace. Hence, which is a very great impediment to the practical application of the heat, it is necessary from time to time to remove the slag from the bars, by which not only is the fire disturbed, but what is a very great drawback, during the whole of the time that the fireman is employed in doing this, cold air is rushing into the furnace, and impinging on the boiler—lowers the temperature, and, consequently, reduces the evaporation. This happens with common coal, but, in addition to this, when anthracite is disturbed in this way, the combustion is materially affected by the cold air. In my experiments this frequently occurred. It was necessary to remove the slag, and as it adhered to the bars, it required a considerable time to get it done. I have no hesitation, therefore, in stating, that had an anthracite with less volatile ingredients, and more especially with a smaller quantity of incombustible matter, been used, there would have been a greater amount of evaporation—of course, a smaller loss of the heat evolved by the combustion.

The next set of experiments was made with the view of ascertaining the evaporative power of English caking, compared with common Scotch coal. Of course, the strength of these must vary according to circumstances; the results now to be stated must, therefore, be considered as applying only to those on which the trials were made. The English coal used was imported at Leith, and said to be of the best quality; being got direct from the vessel, it may be considered as free from admixture. The Scotch coal with which it was compared was from the neighbourhood of Edinburgh, and is generally reckoned good.

I regret that I had not an opportunity of trying these coals in the furnace used for the anthracite. I was obliged to have recourse to one of much smaller dimensions, and in which, though the combustion was as complete as frequently occurs, yet there was a considerable waste of heat. I give these experiments, therefore, not with the view of showing what can be done by these coals, but, as the waste would affect both fuels equally, the results will prove their comparative evaporative power in practice.

The boiler employed was made of thin sheet copper. It was of the waggon form, with a flue returning through it, and capable of holding fifty gallons of water. The fire surface of the furnace was sixteen inches by fourteen, and the surface of the boiler exposed over the fire and otherwise to the heated products of combustion, was in all eighteen feet. As the boiler was open, of course the evaporation was conducted under the usual atmospheric pressure. The water supplied was, in all the trials, at the temperature of 50°. It was measured when thrown into the boiler, and, to check the results, a graduated gauge was attached to the boiler, by which the height of the fluid within could be ascertained, and the amount of evaporation known. Six trials were made with the Scotch coal—each lasting nearly nine hours. It is unnecessary to give the results of the whole. I select one, which was conducted with great care. The following is a tabular view of the working:—

Time.	Coal.	Water evaporated.	Time.	Coal.	Water evaporated.
11h 0m	4	—	2h 30m	4	—
11 30	4	—	3 0	4	—
12 0	4	—	3 30	4	—
12 30	4	—	4 0	4	114
1 0	4	80	4 30	4	—
1 30	4	—	5 0	4	—
2 0	4	—	5 30	4	—
2 30	4	—	6 0	4	96
3 0	4	100	6 15	4	10

Time, 8h 15m.—Coal, 68 lbs.—Water evaporated, 400 lbs.

In this trial, which lasted for eight and a quarter hours, 4 lbs. of coal being supplied regularly each half hour, there were used in all 68 lbs., and 400 lbs. of water were evaporated—thus giving 5·88 for each pound of coal.

Three trials were made in the same way with English coal, due attention being paid to the supply of fuel to the furnace, so as to secure the proper combustion; and as the quantity put in at a time was small, the combustion was tolerably regular. I select one of the trials, with which the others very nearly agreed:—

Time.	Fuel.	Water evaporated.	Time.	Fuel.	Water evaporated.
10h 0m	3	—	2h 30m	3	—
10 30	3	—	3 0	3	—
11 0	3	—	3 30	3	—
11 30	3	—	4 0	3	100
12 0	3	106	4 30	3	—
12 30	3	—	5 0	3	—
1 0	3	—	5 30	3	—
1 30	3	—	6 0	3	90
2 0	3	79	6 24	3	26

Time, 8h 24m.—Fuel, 51 lbs.—Water evaporated, 400 lbs.

In this trial 51 lbs. of coal were used, and 400 lbs. of water evaporated: hence, for each pound of coal used, 7·84 of water were evaporated.

Different results were obtained in some of the other experiments, some of them giving a larger amount of evaporation. Taking the average of the whole, it very nearly agreed with the above—

According to it, 5·88 : 7·84 :: 100 : 133.

The average of the trials, properly conducted, gives a result as 100 to 131·5. We are not, therefore, far from the truth, if we take it as 100 to 133—that is, as 3 to 4.*

The composition of the Scotch and English coal was found to be—

	Scotch.	English.
Moisture	7·5	1·5
Volatile matter	34·5	29·5
Fixed carbon	50·5	67·0
Ashes	7·5	2·0
	100·0	100·0

The table given by Mr. Richardson, already quoted, shows that the evaporative power, calculated according to the quantity of oxygen required for combustion, ought to be in the ratio of 100 to 109·6. In the experiments I have made on the coals used in the trials above referred to, I found the evaporative power by the litharge test to be as 100 to 105·3—numbers not differing much from those of Richardson; but the evaporative power by the furnace trials was as 100 to 133, which is very different from the other. It becomes, therefore, an important question—what is the cause of this difference? for if we can solve this, it may, perhaps, lead to the means of making the available power of the Scotch approximate to that of the English coal To this I will afterwards refer.

On viewing the results of the experiments now detailed, one remarkable circumstance at once strikes us—it is the great practical evaporative power of anthracite over the other kinds of coal, which, though they contain less fixed carbon, yet have much more volatile matter—the hydrogen of which, I have already said, gives out thrice as much heat as carbon does. In the anthracite which I employed, the fixed carbon amounted to 71·4 per cent.; in the caking coal it was 67, and in the Scotch coal only 50·5. Now, with regard to the comparative practical evaporative power of the Scotch and English coal, I have stated them as 100 to 133, and as 50·5 : 67 :: 100 : 132.

Again, with regard to the Scotch and anthracite, I have given the evaporative power as 6·66 to 9·73, and 50·5 : 71·4 :: 6·66 : 9·41. Thus, not only is the evaporative power in practice in the ratio of the fixed carbon, but there is a very remarkable approximation in the evaporative power to the proportion of this ingredient in each.

In the anthracite the volatile matter, independent of the moisture, was 19·3; in the English it was 29·5; and in the Scotch it amounted to no less than 34·5 per cent. We would, therefore, naturally expect that the English and Scotch coal would have a greater evaporative power, whereas that which has the least of these volatile ingredients has the greatest. It is evident from this, that, in the combustion of fuel in furnaces as commonly constructed, the loss of the heat evolved is occasioned, in a great measure, by the volatile matter; much of these, we know, is consumed, but even in the best constructed furnaces there is an escape of a considerable proportion, owing to the want of a due supply of air, or from want of the proper temperature, even though air is present; indeed, it is chiefly owing to the latter, for we never find that the air that has passed up through the fuel is entirely deprived of its oxygen.

Numerous methods have been recommended for securing the perfect combustion of all the gaseous matter, such as the cautious introduction of the fuel near the front of the furnace, instead of throwing it carelessly over the whole heap in a state of combustion, by which the gradual discharge of the volatile matter is occasioned, and which, being thus expelled and passed over the ignited fuel, should be burned, provided air in sufficient quantity is present. Many others have also been proposed—such as that patented by Mr. Williams, of Liverpool, which consists in allowing air to flow by small streams into the furnace behind the bridge, by which the volatile matter that has escaped combustion is to be consumed. Another is that lately introduced by Mr. Ivison, of this place. It consists in throwing in small jets of steam at the front of the furnace, immediately over the surface of the fuel, at the same time admitting air, at the furnace door or otherwise, also over the fuel. It is not my intention to enter into a discussion as to the merit of these processes for effecting the objects proposed. I will, perhaps, at a future period, make some remarks regarding the latter, with which I have had many opportunities of operating, and with which I have obtained the most unlooked-for, but at the same time the most satisfactory, results. Keeping out of view these and other contrivances of a similar nature, it is evident that the power of anthracite is far beyond that of other kinds of fuel, more particularly when it is of good quality—that is, rich in fixed carbon, simply because there being little—indeed, in some kinds of it, we may say no—volatile inflammable matter; the whole of the combustible substance is consumed, and the only loss of heat arises from that which must pass up the chimney, and by which a draft is secured, besides what is given off in the flues and otherwise by communication, through the materials of the furnace.

There is still another point to which I wish to advert. I have already alluded to the great practical evaporative power of those fuels containing much fixed carbon. On still farther viewing the results of the experiments which have been detailed, we find that not only does the evaporative power bear a ratio to the proportion of this element in the different fuels, but it would appear to be almost in the exact ratio of its quantity in each. Thus the fixed carbon in the anthracite I employed was 71·4 per cent.; now, taking that of pure carbon as 12·3, as 100 : 12·3 :: 71·4 : 8·77, the practical working of the fuel actually consumed was 8·73. The fixed carbon in the Scotch coal was 50·5 per cent., and as 100 : 12·3 :: 50·5 : 6·21, the practical working was 6·66. In the anthracite used by Dr. Sebaf'haeutl, the fixed carbon was 92·42, and as 100 : 12·3 :: 92·42 : 10·36, the practical working was 10·56. The evaporative power in practice seems, therefore, to be very nearly as the quantity of fixed carbon in the fuel. I am strongly inclined to think that this will be found to be the case with all fuels in their natural state; and if so, then, in using fuel in furnaces as now constructed, supposing the combustion to be as perfect as we can expect to make it in these furnaces, we shall find the practical evaporative power to be according to the per centage of fixed carbon. If this should be found to be the case, then we have an easy method of knowing the practical evaporative power of a fuel—which is merely to ascertain the quantity of fixed carbon. This may be done by exposing a certain weight of it in a covered crucible for some time to a red heat—the time depending, in a great measure, on the quantity used; then, when cold, to weigh the residue, and afterwards to expose it to a red heat in an open crucible, or on a platinum foil, till it ceases to contain any admixture of carbon, which is easily known by the appearance of the residue; the loss of weight thus sustained, deducted from what was left by exposure to heat excluded from air, will give the weight of fixed carbon. Thus, 100 grs. of the Scotch coal, used in my trials, exposed to heat in a covered crucible, lost 42 of moisture and volatile inflammable matter—the 58 grs. of residue, consisting of fixed carbon and incombustible substance, when heated in air, left 7·5—the loss, amounting to 50·5, was, of course, fixed carbon, which was consumed by its union with oxygen.

From the few experiments I have made, I do not feel that I am warranted in drawing it as a general conclusion, that the practical evaporative power will be found to be as the fixed carbon, but from what I have seen, I have every reason to think that is either so, or very near it; of course, it will require a more extended series of experiments, made on a larger scale, before such a conclusion can be proved to be correct. The subject is important, and well worthy of farther prosecution, and I trust that those who have opportunities for testing the practical evaporative power in furnaces properly constructed, will, from what I have advanced, have their attention drawn to it. Till this is properly tried, it is useless to enter into speculation regarding the heat evolved by combustible matter; at the same time, however, there is one point to which I cannot refrain from alluding. Whether or not it is found that the practical evaporative power is as the fixed carbon, it must be allowed that in the trials, the results of which I have given, it bears a close approximation to it; then a question arises—what becomes of the heat evolved by the combustion of the volatile ingredients? We know that the greater part of these is consumed, and they must give out heat by their combustion; if so, how does it happen that the evaporation is not greater than what should be occasioned by the consumption merely of the fixed carbon? This may, to a certain extent, be explained by the volatilisation of the elements that assume the gaseous form. When heat is applied to coal, by which it is made to unite with oxygen, and itself give forth heat, a part of that heat must be spent in enabling the hydrogen, with the equivalent proportion of carbon, to assume the elastic form. Now, if the whole of this was to escape without undergoing combustion, while, at the same time, the fixed carbon only is burned, we can easily conceive that the evaporative power of a coal thus consumed would be less than in the ratio of the fixed carbon it contains; but this is never the case in properly constructed furnaces; a great part of the gaseous matters is consumed, and they, by their combustion, again evolve the heat which was absorbed by them when assuming the elastic form. Perhaps in furnaces as now constructed, even on the best principles, the whole, or nearly the whole, of the heat thus disengaged is so required; of course, the greater the proportion of volatile matter, the greater will be the abstraction of heat while they become gaseous, and, consequently, it will require the consumption of a proportional part to supply the heat thus abstracted. While, therefore, the heat evolved by the combustion of the fixed carbon is a fixed quantity in each fuel, and as, when the gaseous matter evolved is great, a proportionally smaller quantity of it is generally consumed—hence the lower evaporative power of those fuels containing much of the elements that yield the volatile matter; and, again, as it is much easier to effect the complete combustion of fixed carbon than of all the ingredients, both fixed and volatile, of a bituminous coal—hence the value of those that contain much of the fixed element, when consumed in furnaces as now usually constructed. I know that what I now assert is at variance with the opinions entertained on this point by practical engineers, who generally think that a great deal depends on the flame of the volatile matter. If, however, any reliance is to be placed in the experiments, the results of which I have detailed, I think they will be forced to allow that I am correct in what I assert—that the greater the proportion of fixed carbon in a fuel, the greater will be the practical evaporative power. In a national point of view, then, now that the demand for fuel has become so great, and that for long voyages it is of the utmost consequence to have the fuel powerful, so as to occupy as little space as possible, or rather, if I may be allowed the expression, to have a greater quantity of an evaporative power stowed away in the same space—it is of vast importance that attempts should be made to introduce the anthracite fuel.

* Higher results than that given above have been obtained by others; but I wish them stated to be considered as applying merely to the coals used; though, I believe, they will be found as very nearly the average comparative power of Scotch and English coal.

New Zealand Company.—The Charter of Incorporation of the New Zealand Company is now in print. It is a voluminous document, of twelve folio pages, which precludes its insertion in this Journal, especially as its details, set forth in the verbose style usual with legal instruments, are interesting only to those in whose hands, as shareholders of the company, the paper itself will be, if it has not already been placed. Even of such persons, a great many may not care to wade through the mass of entangled technicalities, and may be as glad as the general reader to know, without taking that trouble, what are the most remarkable points in the charter. They relate to the capital, the management, and the functions of the company. The company are required to raise the amount of their present capital of 100,000*l.* to 300,000*l.*, in 25*l.* shares—two-thirds of which must be paid up or invested within a twelvemonth from the date of the charter; the company are permitted further to increase their capital to 1,000,000*l.* if they think fit, and they are empowered to raise a loan of 500,000*l.*, secured on the profits or property of the company. The company is to be managed by a governor, a deputy-governor, and directors of any number not less than twelve nor exceeding twenty-four—the governor and deputy-governor to be reckoned as two of the number; the present governor, deputy-governor, and directors, are continued in office until May next—at that time, and at the same period in each succeeding year, a number equalling as nearly as may be one-fourth of the whole directors are to go out of office; their successors to be elected by the shareholders, at a general meeting to be held annually for the purpose; the outgoing directors to be capable of re-election.

Exportation of Machinery.—The select committee appointed on the 16th of February last to inquire into the operation of the existing laws affecting the exportation of machinery, have made their first report, which has been printed by order of the House of Commons. The committee merely report the evidence given by the several witnesses examined before them, which is very voluminous, occupying some 225 pages. It appears from the Appendix, that the official value of the machinery (including all sorts) exported during the year 1840, to all parts of the world, was altogether 593,064*l.* The countries to which the greatest quantity of machinery was exported, appear to have been Germany, France, Italy, Holland, the East and West Indies, Russia, and Belgium. The above committee consist of the following members—viz., Mr. M. Philips, Sir R. Peel, Mr. Labouchere, Lord F. Egerton, Mr. Hume, Viscount Sandon, Sir G. Strickland, Mr. Emerson Tennent, Mr. Morrison, Mr. Bolling, Mr. Villiers, Mr. Townley Parker, Mr. John Heathcoat, Mr. Colquhoun, Mr. Oswald, Sir James Graham, Mr. Stansfield, Mr. J. Parker, Mr. Brotherton, Mr. Easthope, and Mr. Grimsditch.—Five to be the quorum.

New System of Tramroads.—Mr. H. Taylor, the inventor of the steam cowpenge, and Mr. Conder, who has recently published a small work on railways, have invented a new system of communication by locomotives, which will comprise all the advantages derived from the present plan of railways at a greatly diminished cost. The new system has, it is said, been submitted to the severest tests, and that patents are about to be secured for this invention.

Great Work on the Milan Railway.—A Leghorn letter mentions that the Tuscan Government has authorised the formation of a railroad from that city to Florence, passing by Pisa. The works are to be commenced between Leghorn and Pisa. We learn from Venice that the long bridge which is to be constructed across the Lagunes, from the continent to the city, for the passage of the Milan Railroad, will shortly be commenced. This gigantic construction, which will cost 4,830,000 lire (or 3,671,400 francs), is to serve as an aqueduct at the same time, and by this means Venice will be furnished with a constant supply of fresh water.

North Midland Railway.—On Tuesday week eleven new local stations—viz., Duffield, Smithy Moor, Clay Cross, Staveley, Killamarsh, Woodhouse Mill, Treeton, Kilnhurst, Wath, and Royston, were opened, for the greater accommodation of the villages through which the line passes. Two trains each way stop at these stations. The facility for persons wishing to travel upon this line is now very great.

Llanelly Railway.—It appears that this railway, which was intended merely for the transmission of coals, and was never thought would be able to command a traffic in passengers, and which, therefore, is provided with only two locomotives and two railway carriages to run on its single way, has actually carried 2523 passengers in four weeks, or at the rate of 631 per week. Such a circumstance is strikingly indicative of the great powers of railways to increase and even to create passenger traffic in localities where it may be supposed it could hardly exist.

Railways in Ireland.—The *Limerick Chronicle* says—"the railway system is to be taken up, as was recommended, at the Commercial-buildings, Dublin, where the Duke of Leinster and Mr. O'Connell moved the Government plan—'Private enterprise, aided by the State.' The southern will be the line, so as to diverge to Limerick; the money to be advanced by Baring and others, guaranteed 4 per cent. by Government, the surplus profits to go to further extensions. It is said MacNeil and G. Stephenson will be the engineers. The plan must succeed, and produce great benefit."

Netherlands Railway Company.—A numerously-attended meeting of the members of the Netherlands Iron Railway Company was held on the 15th inst., at Amsterdam, at which a highly favourable account was given of the state of the company; it appears that the expenses for the year 1840 were 117,866*l.*, and the receipts 168,883*l.*

London and Brighton Railway.—The works of the railway terminus are going on with great expedition. Already the second permanent carriage-shed is nearly completed, and the decorative part of the grand station is in a forward state. The terminus is to be lighted with gas, and we hear that the directors also intend to light the first mile and a half of the line, as far as Preston, with gas.—*Brighton Gazette.*

Edinburgh and Glasgow Railway.—Mr. Miller, the engineer of this line, intends to open it throughout, from end to end, on 1st August next, without fail. The repairing and other stations are also progressing rapidly towards completion, and the whole line of railway is a very animated scene, from the great exertions which are now made to finish it without delay.—*Edinburgh Witness.*

Maryport and Carlisle Railway.—A further opening of a portion of this line (about two miles) took place on Monday last, connecting it with the populous town of Aspatria. That part of the line already opened, between Arkleby and Aspatria, is formed on an embankment, thirty feet in width, and averaging about twelve feet in height; the bridge at Aspatria, which forms the present terminus, was tastefully decorated, and formed a grand triumphal arch. The trains performed six trips each day, and would carry not fewer than 4000 persons, the distance of eight miles. The time required for each trip varied from fifteen to twenty-five minutes. The coal traffic has lately become very heavy, frequently amounting to 100 and sometimes 120 waggons per day, each waggon containing 53 cwt. Several new pits will shortly be opened, for it is found that one continued vein of fine coal lies below the banks of the Ellen, which will now be profitably working, owing to facilities for shipment afforded by the railway. The passenger traffic is also rapidly increasing; and, indeed, new sources of both goods and passenger traffic appear to be opened up daily as it progresses. The company will now commence operations at the Carlisle end, and we understand the engineering is in a state of great forwardness all along the line.

FROM THE LONDON GAZETTE.

Tuesday, April 20.

INSOLVENTS.

April 17.—Matthew Wilks Vardy, Newbury, Berkshire, bookseller.
20.—Isaac Treveure, Chard, Somersetshire, clothier.

BANKRUPTS.

J. F. Edgley, Mark-lane, wine merchant. [Freshfield, New Bank-buildings.
E. Lockyard, Mirfield, Yorkshire, oil crusher. [Jaques and Co., Ely-place, Holborn.
J. Berry, Liverpool, banker. [Addington and Co., Bedford-row.
W. F. Coe, Cambridge, ironmonger. [Hall, Brunswick-row, Queen-square.
L. T. Brown, Newent, Gloucestershire, innkeeper. [Cree and Son, Verulam-bdgs.
R. Potts, Leeds, wool broker. [Hawkins and Co., New Bucwell-court.
J. Hicklin, Nottingham, printer. [Campbell and Willy, Essex-street, Strand.
H. Smith, Doncaster, British wine manufacturer. [Hale and Co., Ely-place.
F. Barnard, Bideford, Devonshire, merchant. [Vandercom and Co., Bush-lane.
J. Dickson, Newcastle-upon-Tyne, draper. [Williamson and Hill, Verulam-bdgs.

DIVIDENDS.

May 18, R. Perkins, Upper-street, Islington, upholsterer—J. Faulkner, jun., Dauvet's-wharf, Chelsea, builder—14, J. Fearnley, Bradford, Yorkshire, woolstapler—15, H. J. and C. Ebsworth, Coleman-street, wool brokers—J. Stickland, T. P. Shaw, and F. Mallock, Newgate-market, cheesemongers—T. J. Brooks and C. Burfield, sen., Fenning's-wharf, Tooley-street, Southwark, and Hastings, Sussex, merchants—16, W. Holdaway, Petersfield, Hampshire, innkeeper—11, W. Wilson, Wakefield, Yorkshire, innkeeper—14, S. Lord, Leeds, woollen cloth merchant—20, W. Wolff, Huddersfield, and Hamburgh, general merchant—July 6, W. Hannaford and N. Prettejohn, Kingsbridge, Devonshire, and Portsmouth, cattle dealers—May 15, J. Dealley, Leeds, innkeeper—12, J. Greenhalgh, Stockport, Cheshire, cotton spinner—June 29, G. James, Bangor, Carnarvonshire, druggist—May 15, T. Vinson, Bideford, Devonshire, tailor—12, T. Robson, Liverpool, soap manufacturer.

Certificates to be granted, unless cause be shown to the contrary, on or before May 11.

J. M. Hervey, Brick-lane, Old-street, ironfounder—A. Woolf, Brighton, cabinet maker—W. Bell, sen., Bath, upholsterer—G. Ellis, Stoke-upon-Trent, Staffordshire, earthenware manufacturer—J. Toone, Leamington Priors, Warwickshire, builder—E. L. Mayer, Northampton, innkeeper—D. Evans, John-street, Minories, stove grate manufacturer—J. Richardson, jun., and W. Thompson, Liverpool, shareholders—J. Shaw, Saddleworth, Yorkshire, woollen manufacturer.

Friday, April 23.

INSOLVENTS.

April 22.—William Jones, Talsyarn, Carnarvonshire, farmer.
23.—James Tapley, Greenwich, grocer.

BANKRUPTCY SUPERSEDED.

George Jones, Birmingham, ironfounder.

BANKRUPTS.

F. H. Abbott, King's Arms-yard, Moorgate-street, merchant. [Turner and Thomson, Basing-lane.
J. Fisher, Friendsbury, Kent, miller. [Simpson and Moor, Furnival's-inn.
G. Jones, Hampton Old-Town, water proof leather manufacturer. [Lindsay and Co., Cavendish-street. [Bedford-row.
E. Dollman, Church-court, Clement's-lane, merchant. [Fisher, Great Jarmon-street.
F. Scottson, Devil's-bridge, Cardigan, hotel keeper. [Shewell, Gray's-inn-square.
A. Walker, Liverpool, dry-salter. [Wilde and Co., Tokenhouse-yard.
J. Rose, Epworth, Lincolnshire, sacking manufacturer. [Tilson & Co., Coleman-st.
S. Netham, Sowerby, Yorkshire, builder. [Kirk, Symond's-inn.
M. Hilditch, Walsall, Staffordshire, miner. [Miller and Fallows, Piccadilly.
W. Wood, Walsall, Staffordshire, publican. [Hurd, New Boswell-court.
J. Ellistone, Holywell, Flintshire, grocer. [Smedley and Rogers, Jermyn-street.
W. J. Wardell, Pickering, Yorkshire, wine merchant. [Strongitharm, Bernard's-inn.
R. Goodby and W. E. M'Gee, Kingston-upon-Hull, millers. [Walmsley and Co., Chancery-lane. [Gracechurch-street.
C. Cross and R. Spruill, Colchester, merchants. [Wood and Ellis, Corbet-court.
W. Burton, Kirby Misperton, Yorkshire, banker. [Dyneley and Co., Bedford-row.
W. Jones and J. B. Windle, Liverpool, wine merchants. [Makinson and Sanders, Middle Temple.

DIVIDENDS.

May 14, W. Collin, Dunmow, Essex, draper—T. Gurton, jun., Grosvenor-row, Pimlico, bookseller—17, J. Jones, Station, Middlesex, innkeeper—15, J. Stickland and Jos. F. Mallock, Newgate-market, cheesemongers—R. Wood, Fleet-street, medicine vendor—14, R. Waring, Luton, Bedfordshire, grocer—W. Crowther, jun., and C. Tapp, Charles-street, Middlesex Hospital, cheesemongers—J. C. and T. Lucas, Aldersgate-street, ironmongers—E. W. Smith, sen., Charles-street, Middlesex Hospital, cheesemonger—D. Finnemore, W. Sykes, and J. Finnemore, Charles-street, Bermondsey, leather factors—15, J. Jordan, Leeds, cabinet maker—T. Pickard, Leeds, cabinet maker—20, S. Jacques, J. Collins, and T. S. Oliver, Nottingham, hosiers—21, J. Cole, Old Byland, Yorkshire, cattle dealer—J. Pritchard, Worcester, Oxfordshire, iron founder—17, E. Lax, Manchester, innkeeper—J. Dunlop, Grosvenor's-mills, Yorkshire, silk spinner—J. H. Lolliff, Ulverston, Lancashire, flax spinner—15, S. C. Edwards and S. Bushway, Stourbridge, Worcestershire, ironmongers—16, E. Self, North Curry, Somersetshire, draper—17, A. Nicholl and W. Nicholl, Greetland, Yorkshire, woollen spinners—14, W. Redman, and J. [illegible], warehouse, Bristol, soap manufacturers.

Certificates to be granted, unless cause to shown to the contrary, on or before May 14.

J. A. Rouse, Brighton, bookseller—W. Knowsley, Great Guildford-street, [illegible]-work, engineer—E. E. Rouse, Worcester, chairmaker—W. Tomlinson, [illegible], iron maker—J. Barlow, Birmingham, bricklayer.

LATEST PRICES OF FUNDS, SHARES, ETC.

ENGLISH FUNDS.

Consols Money, 90¼ ⅜	Reduced 3½ per Cents., 97⅞ 8
Ditto Account, 90¼ ⅜	Long Annuities, 12⅞
New 3½ per Cents., 99⅛	Bank Stock, 172½ 3½
Reduced 3 per Cents., 89¼ ⅜	Exchequer Bills, 14 16 pm.

FOREIGN FUNDS.

Belgian Bonds, 5 per Cent., 103 4	Portuguese, 5 per Cent., 33⅞ 4½
Brazil, 5 per Cent., 69 70	Ditto, 3 per Cent., 20 ¼
Danish, 3 per Cent., 77¼ 8¼	Russian, 5 per Cent., 112½ 113½
Dutch, 2½ per Cent., 52⅞ ⅜	Spanish, Actives, 5 per Cent., 23¼ ⅜
Ditto, 5 per Cent., 99⅞ 100	Chili, 6 per Cent., 59 62

SHARES.

London & Blackwall R'way, 5⅞ ¼ dis.	Great Western, 29 30 pm.
London and Brighton, 2¼ ¼ dis.	Ditto ½ Shares, 14 ¼ pm.
London and Croydon, 13⅞ 14¼ per sh.	North Midland, 19 17 dis.
London and Birmingham, 69 71 pm.	South Eastern, 14¼ 13⅞ dis.
London & Sh. Western, 58 9 per sh.	Colonial Bank, 11¼ 12¼ pm.
Eastern Counties, 13⅞ ¼ dis.	London & Westminster, 2⅞ 3 pm.
London and Greenwich, 8¼ ⅜ per sh.	London Joint-Stock, 2 ¼ pm.

MONEY MARKET AND CITY NEWS.

SATURDAY.—Business in the English stocks has been limited to-day, and prices have hardly varied, the only difference being buyers or sellers.

In the foreign securities no perceptible alteration took place in value, but the market was very flat.

Birmingham shares left off 68 to 70 pm.; Birmingham and Gloucester, 21 to 20 dis.; Great Western, 30 to 31 pm.; and South-Western, 57½ to 58¼ per share.—London Joint-Stock Bank, 12¼.—Anti Dry-Rot Company, registered, 2.

MONDAY.—The English funds have been in a passive state all day, and closed much the same as they opened. Consols for Money left off 90⅛ to ¼; ditto for the Account, 90⅛ to ¼; Exchequer Bills, 13s. to 15s. pm.; Bank Stock, 172 to 3; India Stock, 255 to 6; 3½ per Cents. Reduced, 98 to ⅛; 3 per Cents. Reduced, 89¼; Long Annuities (expiring Jan. 5, 1860), 12 15-16 to ⅞; ditto, 30 years (expiring Oct. 10, 1859), 12⅞ to 13-16; ditto, 30 years (expiring Jan. 5, 1860), 13 3-16; and India Bonds, 2 pm. to par.

The only alteration that occurred in the value of the foreign securities was in those of the Peninsular Governments, which bore, up to the close of the market, a rather improved appearance. Portuguese 5 per Cents. touched 34¼, but receded to 34 to ¼; the 3 per Cents. closed 20¼ to ⅜; Spanish Actives, 23¼ to ⅜; Dutch 2½ per Cents., 52 to ¼; ditto 5 per Cents., 99⅞ to 99¼; Colombian, 22⅞ to 23; and Danish, 77¼ to 78¼.

Birmingham shares were finally quoted 68 to 70 pm.; Blackwall, 5½ to 5 dis.; Great Western, 30¼ to 31¼ pm.; North Midland 21 to 19 dis.; ditto new, 2 dis. to par; Gosport, 7 to 8 pm.; Brighton 2¼ to 2 dis.; South-Western, 57¼ to 58¼ per share; and Eastern Counties, 13⅞ to ¼ dis.—Colonial Bank, 35; London and Westminster, new, 7¼.

TUESDAY.—Business in the English stocks to-day was very limited, and in consequence of the disinclination shown to deal, the aspect of the market, notwithstanding their was no material alteration in prices, is considered flatter. Money was not so plentiful as of late, and commands 3 per cent.

In the foreign securities the bargains were small, and the late advance in those of the Peninsula was not maintained, as sellers came into the market.

There was a call for Brighton shares in the early part of the day, and the discount upon them decreased to 1½, but towards the close of business some few sellers appeared, and the last quotation was 2¼ to 1⅞ dis. Other descriptions were firm.—National Bank of Ireland, 15¼; Union of Australia, 34¼; Union of London, 9⅞.

In the foreign exchanges business was not active, but, as the demand appeared rather to exceed the supply, the rates on Paris and Amsterdam were a shade lower. The rate on Hamburgh was much the same as last post.

The premium on gold at Paris is 8 per mille, which, at the English Mint price of 3l. 17s. 10½d. per ounce for standard gold, gives an exchange of 25. 35, and the exchange at Paris on London at short being 25. 45, it follows that gold is 0·40 per cent. dearer in London than in Paris.

By advices from Hamburgh the price of gold is 428 per mark, which, at the English Mint price of 3l. 17s. 10½d. per ounce for standard gold, gives an exchange of 13. 6¼, and the exchange at Hamburgh on London at short being 13. 7¼, it follows that gold is 0·34 per cent. dearer in London than in Hamburgh.

The course of exchange at New York on London is 109⅞ per cent., and the par of exchange between England and America being 109 23 40 per cent., it follows that the exchange is 2·85 per cent. against England. But the quoted exchange at New York being for bills at sixty days' sight, the interest must be deducted from the above difference.

WEDNESDAY.—The English stocks continue in a very inactive state, but there has been no relapse in prices.

The foreign stocks were equally inactive, from the want of business.

There was no material alteration in the share market; Great Westerns gave way a shade, and Brightons were not quite so firm as yesterday.—London and Westminster Bank, new, 7¼; Union of Australia, 34¼ to ½.

THURSDAY.—In the English stocks business continues limited, without alteration in prices. Consols for Money, 90¼ to ⅜; ditto for Account, 90¼ to ⅜; 3 per Cents. Reduced, 89⅞; 3½ per Cents. Reduced, 98; New 3½ per Cents., 99¼; Bank Stock, 172⅞ to 3½; India Stock, 255½ to 6½; Exchequer Bills, 14s. to 16s. pm.; and India Bonds, 1s. to 3s. pm.

There was very little done in the foreign stock market, which nevertheless showed no symptoms of decline, but rather, on the contrary, a disposition to advance.

There was more business doing in shares, and Birminghams are quoted 1l. per share higher; Great Westerns, on the contrary, declined 1l. per share; Manchester and Leeds were also rather lower.—Cobre Copper Mining Company, 36¼ to 7.—Colonial Bank, 36 to 35½; London and Westminster, new, 7¼; Union of Australia, 34¼ to 34½.

FRIDAY.—The English funds were weakened in the early part of the day by some few sales, but subsequently recovered, though they did not leave off so firm as they opened. The last quoted price of Consols for Money was 90¼ to ⅜, and for the Account 90¼ sellers; Bank Stock closed 172½ to 173½; India Stock, 255½ to 256½; Exchequer Bills, 14s. to 16s.; India Bonds, 3 pm.; 3 per Cents. Reduced, 89⅞; 3½ per Cents. Reduced, 97⅞; New 3½ per Cents., 99 to ⅛; Long Annuities (expiring Jan. 5, 1860), 12 15-16; and ditto 30 years (expiring Jan. 5, 1860), 13¼.

Little has been done in the foreign securities, but they nevertheless maintained their quotations during the day. Spanish Actives were 23¼ to ⅜; Dutch 2½ per Cents., 52⅞ to ¼; ditto 5 per Cents., 99⅞ to 100; Colombian, 23 to ¼; Portuguese 5 per Cents., 33⅞ to 4½; ditto 3 per Cents., 20 to ¼; Danish, 77¼ to 8¼; Belgian, 103 to 4; and Mexican, 30¼ to ⅞.

Railway shares were not altogether firm, and prices receded in some instances. Birmingham, 69 to 71 pm.; Brighton, 2¼ to 2 dis.; Blackwall, 5⅞ to ⅜ dis.; North Midland, 19 to 17 dis.; ditto, new, ⅜ dis. to ⅛ pm.; Gosport, 7 to 9 pm.; Eastern Counties, 13⅞ to ¼ dis.; Great Western, 29 to 30 pm.; ditto, half shares, 14 to ¼ pm.; London and South-Western, 58¼; and London and Greenwich, 8¼ to ⅜.—Australasian Bank, new, 38.

The demand to-day for bills on Paris and Amsterdam having rather exceeded the supply, there was a trifling depression in the rates on those places. Hamburgh remained much the same as last post, and on the whole there was not much business done.

FUNDED DEBT OF GREAT BRITAIN AND IRELAND.—It appears, from official reports on the subject, that the public funded debt of Great Britain (exclusive of the capitals transferred to the commissioners) amounted, on the 5th of January, 1840, to 757,649,694l. 16s. 3d., and that of Ireland to 33,867,868l. 18s. 11d., making altogether 791,517,563l. 17s. 4d.—the total annual charge upon which, including Ireland, amounted to 28,748,794l. 7s. 8d., exclusive of the annual charge on capitals, &c., standing in the names of the commissioners. The Exchequer Bills outstanding and unprovided for on the 5th of January, 1840, amounted to 20,801,350l., and on the 5th of January, 1839, to 24,026,000l.

LATEST PRICES OF IRISH STOCKS.—3 per Cent. Consols, 89—3½ Stock, 97¼—Ditto New, 1830, 97⅞—3½ per Cent. Debentures, 91⅞—Bank Stock, 167¼—Kingstown Railway, 79—Drogheda, 7¼—National Insurance Company, 78¼—City of Dublin Steam Company, 113½—ditto Stock, 1835, 57½—British and Irish Steam Company, 30¼—Hibernian Bank, 23⅞—Royal Bank, 9⅞—Mining Company of Ireland, 13¼—Wicklow Copper Mine, 10.

PARIS, April 22.—5 per Cents., 118f. 60c.; 4 per Cents., 99f. 75c.; 3 per Cents., 78f. 20c.; Bank Actions, 3125f.; Rente de Naples, 104f. 10c.; Roman, 102¼; Spanish Active, 24⅞; ditto Passive, 5⅞; Belgian 5 per Cents., 1831, 101⅞; ditto, 1840, 101⅞; ditto 3 per Cents., 71f. 50c.; Belgian Bank, 835f.; Haytian Loan, 520f.—St. Germain Railway, 713f.; Versailles, R. B., 370f.; ditto L. B., 247f. 50c.; Rouen, 495f.; Strasburgh to Bâle, 234f. 75c.; Montpellier to Cette, 407f.; Mulhausen to Thann, 443f. Exchange on London, one month, paper, 25f. 35c.; money, 25f. 30c.; three months, paper, 25f. 17½c.; money, 25f. 17½c.

AMSTERDAM, April 16.—Actual Debt, 2½ per Cents., 51½ to ⅜; 5 per Cents., 99 to ⅛; Amort Synd., 4½ per Cents., 99⅞ to 99¼; Commercial Company, 4½ per Cents., 99⅞ to 100¼; new ditto, 4½ per Cents., 101½ to ⅞; Loan, 1837, 5 per Cents., 97⅞ to ⅛. Exchange on London, 12f. 5c.; two months, 11f. 85c.

BRUSSELS, April 16.—Actual Debt, 2½ per Cents., 52⅞; Rothschild's Loan, 101¼; Loan of 30,000,000, 5c; Loan of 37,000,000, 7c; ditto, 1840, 100¼; Society of Commerce, 100; Bank of Belgium, 99¼.

VIENNA, April 7.—5 per Cents., 107¼; 4 per Cents., 99⅞; 3 per Cents., 77¼; Bank Shares, 1630.

BERLIN, April 13.—St. Schuld Sch., 4 per Cents., 103 to ¼; Prussian English Bonds, 1830, 4 per Cents., 100 11-12 to 100 2-12. Exchange on London, three months, 6 19½.

LEEDS, Thursday.—During the past week the share market has been assuming an aspect more and more lively almost every day, until at last we may now be said to be removed from a serious decline in any description of railway stock, with the exception of one or two, upon which we have our eye. The time of the year, from May to October, inclusive, must be regarded as the harvest of railways, and we have a kind of presentiment that a fine season will follow this early spring, so as to attract very materially a greater number of travellers on the railways than has yet been the case, during the late wet and ungenial summers, and of course this will augment the receipts not a little. The increased receipts upon the North Midland line, this week, amounting to nearly 400l., has given an additional impulse to a market previously advancing; last Saturday they were freely offering in Manchester at 79l.—yesterday we sold them at 81l.—and to-day, we believe, 82l. might be obtained for them. Leeds and Manchester shares are again heavy, at 3l. to 4p. dis., and, unless the receipts upon this road materially improve, these shares must go lower. The improved receipts upon the Hull and Selby line (being 744l. last week, and 710l. this) have at last forced these shares to something like activity; they were lately standing, totally, at 41l.—they are now strong at 43l. York and North Midlands are again higher than they were, being somewhat like 34l. to 35l. pm. on 50l. The new shares will be issued immediately, at par, to the proprietors; the mode of raising money to pay off debts contracted by these companies is the happiest conception that ever was hit upon. The demand for Leeds and Selby shares is decidedly on the increase. 94l. have been paid for them, and we fancy 95l. would readily be given—at which we still consider them cheap, for, when money is abundant, and interest 3½l. per cent., what can be more tempting?—North Midland Railway, 82l. to 83l.; York and North Midland, 94l.; Leeds and Selby, 94l.; Hull and Selby, 45l.; Great North of England 67l.; Manchester and Leeds, 65½l.; Sheffield and Rotherham, 31⅞l.—Leeds Banking Company, 19½l.; Leeds and West Riding, 9⅞l.; Leeds Commercial, 4l.; Yorkshire District, 9⅞l.; Yorkshire Agricultural and Commercial, 4l.; York City and County, 36l.; York Union, 17½l.—Leeds and Liverpool Canal, —; Barnsley, 295l.; Huddersfield, 27l.; Rochdale, 86l.—Leeds and Yorkshire Assurance Company, 10½l.—Leeds Old Gas Company, 19½l.; Leeds New Gas Company, 38l.—Leeds Commercial Buildings, 23l.

R. B. WATSON & Co.

HULL, Thursday.—There seems nothing this week requiring particular comment, except Hull and Selby Rails. These shares are now more noticed, and we should not be surprised if they are just on the eve of a very material advance, which, perhaps, is only retarded by their being so little dealt in in the leading markets.—Birmingham and Derby Railway, 72l.; Birmingham and Gloucester, 80l.; Edinburgh and Glasgow, 38l.; Grand Junction, 211l.; Great North of England, 67l.; Great Western, 95l.; Hull and Selby, 44½l.; Leeds and Selby, 94l.; Liverpool and Manchester, 200l.; London and Birmingham, 159l.; Manchester and Leeds, 67l.; Midland Counties, 90l.; North Midland, 82l.; Sheffield and Rotherham, 32l.; York and North Midland, 81l.—York City and County Bank, 36l.; Yorkshire District, 9⅞l.; Hull, 7½l.; Yorkshire Agricultural, 4l.; Sunderland Joint-Stock, 4½l.—Hull Dock Company, 129l.—Hull Shipping Company, 10l.—Hull Flax and Cotton Mills, 10⅞l.

COLLINSON & FLINT.

EDINBURGH, Wednesday.—Bank shares of every description are extremely dull, and the few sales this week have scarcely maintained the prices of the last Edinburgh and Glasgow Railway continues in demand, and sales were made today at 2l. dis., being 4l. higher than these shares brought a fortnight ago. The run for Greenock Railway shares has slackened, and the market is now full of them. Garnkirk, and Dundee and Arbroath, continue in favour, but Ayrshire is neglected.—Forth and Clyde Canal, 700l.—Shotts Iron Company, 42l.

ROBERT ALLAN.

GLASGOW, Wednesday.—Ballochney Railway, 81l.; Dundee and Arbroath, 29l.; Edinburgh and Glasgow, 38l.; Garnkirk and Glasgow, 31l.; Glasgow and Greenock, 27l.; Glasgow, Paisley, Kilmarnock, and Ayr, 27½l.; Monkland and Kirkintilloch, 58l.; Slamannan, 42l.; Wishaw and Coltness, 80l.

JAMES WATSON.

BRISTOL, Thursday.—Our market has been well supported for some days past, and we close firm at my quotations, though comparatively but little doing here to-day.—Great Western Railway, 90l. to 95½l.; ditto halves, 64⅞l. to 65l.; ditto fifths, 11½l. to 11⅞l.; Bristol and Exeter, 24l. dis., ex div.; Bristol and Gloucester, 2½l. to 3l.; Birmingham and Gloucester, 79l. to 80l.; Cheltenham Union, 32½l.—Bristol Gas Company, 32l.; Clifton Gas, 28l.

LUKE ARNOLD.

LIVERPOOL, Thursday.—We have had a very firm market during the week, but to-day very little business, and evidently a tendency to decline.—Chester and Birkenhead Railway, 36½l.; ditto new shares, 18½l.; Eastern Counties, 9½l.; ditto debentures, 7½l.; Edinburgh and Glasgow, 37l.; Glasgow, Paisley, and Greenock, 26⅞l.; Grand Junction, 211l.; ditto quarter-shares, 28½l.; Great Western, fifth-shares, 11⅞l.; London and Birmingham, quarter shares, 25l.; London and Brighton, 47⅞l.; London and South-Western, 58½l.; Paris and Rouen, 7l.

RICHARD DAWSON.

BIRMINGHAM, Thursday.—London and Birmingham Railway, 159l.; ditto quarter-shares, 24l.; Grand Junction, 211l.; ditto half shares, 105l.; ditto quarter-shares, 28½l.; Eastern Counties, 9½l.; Glasgow, Paisley, and Greenock, 27l.; Liverpool and Manchester, half-shares, 96½l.; London and South-Western, 5l. shares, 2½l.; North Midland, 81½l.; South-Eastern and Dover, 19½l.—*Midland Counties Herald.*

EXPORTATION OF GOLD AND SILVER.—By the official return published by the Customs, the export of the precious metals from the port of London to foreign and colonial ports, for the week ending Thursday, the 15th inst., was as under:—

Silver coin to Hamburgh	33,500	ounces.
,, Rotterdam	4,000	,,
,, Swan River	3,000	,,
,, Belgium	800	,,
Silver bars to Hamburgh	27,000	,,

SALE OF COPPER ORES AT SWANSEA.

Sampled March 31, and sold at Swansea on the 21st of April.

Mines	Tons	Produce	Stand.	Price			Mines	Tons	Produce	Stand.	Price		
Cobre	90	15	95	12	0	0	Chili	95	26½	90⅞	21	12	0
ditto	80	15	95	12	0	0	ditto	90	26	91⅞	21	13	6
ditto	76	14⅞	96	12	0	6	ditto	110	52¼	88¼	43	16	6
ditto	71	14⅞	96¼	11	16	6	ditto	26	24¼	91⅞	19	17	6
ditto	70	15¼	94⅞	12	4	0	ditto	89	26	91¼	21	10	0
ditto	37	15	95	12	0	0	Santiago	90	24½	92½	20	1	0
ditto	90	23	93¼	19	4	0	ditto	89	24	91⅞	19	15	6
ditto	80	23¼	92¼	19	4	0	ditto	87	23⅞	92	19	14	6
ditto	70	23¼	92¼	19	4	0	ditto	86	24	91⅞	19	15	6
ditto	60	23¼	92¼	19	4	0	Allihies	115	10¼	114	9	9	0
ditto	50	23½	91½	19	5	0	ditto	94	10⅞	115	9	8	0
ditto	38	23½	91⅞	19	4	6	Chili	11	23⅞	92	19	0	6
ditto	90	24¼	92	20	3	6	ditto	40	22⅞	92½	18	4	0
ditto	78	24¼	92½	20	5	6	ditto	18	19¼	93½	15	15	0
ditto	70	24½	92	20	5	6	ditto	10	71	87½	59	16	6
ditto	60	24¼	92	20	10	6	ditto	6	77⅛	87¼	65	7	6
ditto	53	24¼	91⅞	20	2	6	ditto	6	75	86⅞	62	13	0
ditto	32	24¼	91⅞	20	0	0	ditto	5	72½	87	60	16	0
ditto	100	14¼	95⅞	12	0	0	ditto	4	76	86⅞	63	14	6
ditto	80	14¼	96½	12	2	0	ditto	4	70	87	58	16	0
ditto	70	14⅞	97	11	19	0	ditto	4	69⅞	87½	58	15	6
ditto	60	14⅞	96¼	11	19	0	ditto	4	72	86	60	11	6
ditto	41	14⅞	96¼	11	19	0	ditto	3	72	86	60	9	6
ditto	95	22⅞	93	18	18	6	ditto	3	75½	86¼	63	2	0
ditto	70	22¼	93½	18	11	6	ditto	3	73	87	61	6	0
ditto	67	22⅞	92⅞	18	17	0	ditto	43	23½	92	19	6	6
ditto	60	22¼	93¼	18	19	0	ditto	35	20½	94¼	17	1	0
ditto	100	14½	96¼	11	14	0	Lackamore	62	7⅞	120½	7	1	6
ditto	80	14½	96	11	13	0	ditto	20	17	108¼	16	3	0
ditto	45	13½	100¼	11	6	6	Llwyndu	40	2⅞	151¼	1	14	6
ditto	4	15¼	94¼	12	15	0	Sygun	18	3¼	142½	2	4	0
							ditto	14	4⅞	125¼	3	11	0

TOTAL PRODUCE.

	Tons	£	s.	d.		Tons	£	s.	d.
Cobre	2063	32639	14	0	Chili	180	5670	10	6
Chili	410	11153	15	0	Lackamore	82	761	13	0
Santiago	357	6981	4	0	Llwyndu	40	69	0	0
Allihies	209	1970	7	0	Sygun	32	89	6	0

Total tons, 3379.—Total amount, £59,331 9 6

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.		
English Copper Company	479½	£9336	1	3
Grenfell and Sons	195	3662	14	0
Sims, Willyams, Neville, Druce, and Co.	441	9478	16	6
Vivian and Sons	1143	16800	14	0
Williams, Foster, and Co.	1058½	17890	6	9
Mines Royal	150	2182	10	0
Total	3379	£59,331	9	6

Copper ores for sale May 5.—Cobre 90, ditto 85, ditto 70, ditto 52, ditto 41, ditto 24, ditto 100, ditto 70, ditto 63, ditto 48, ditto 5, ditto 87, ditto 70, ditto 53, ditto 51, ditto 100, ditto 90, ditto 50—Knockmahon 134, ditto 123, ditto 120, ditto 118, ditto 108, ditto 91, ditto 72, ditto 43—Santiago 106, ditto 101, ditto 100, ditto 93, ditto 91, ditto 90—Chili 93, ditto 86, ditto 57, ditto 14, ditto 53, ditto 50, ditto 75, ditto 3, ditto (withdrawn) 1—Cuba 8., ditto 60—Allihies 106—Kenmare 51—Lacey 52.—Total, 3315.

SALE OF COPPER ORES AT REDRUTH.

Sampled April 7, and sold at Andrew's Hotel, Redruth, April 22.

Mines.	Tons.	Price.			Purchasers.	Mines.	Tons.	Price.			Purchasers.
Treasvean	122	5	5	6	Mines Royal	Wh. Lydia	79				withdrawn.
ditto	111	5	17	6	——	ditto	38				withdrawn.
ditto	107	4	0	6	Vivians.	ditto	45				withdrawn.
ditto	104	5	0	6	Mines Royal	S. Towan	36				withdrawn.
ditto	102	6	12	6	Williams.	Holmbush	114	10	7	0	P. Grenfells.
ditto	88	5	12	6	Vivians.	ditto	54	6	1	0	Nevill & Co.
ditto	73	5	11	6	Mines Royal	N. Downs	91	4	17	6	Williams.
ditto	72	5	13	6	Vivians.	ditto	54	5	10	0	P. Grenfells.
Trethellan	120	4	16	6	——	Levant	56	10	0	0	Freemans.
ditto	117	5	14	6	——	ditto	29	30	17	6	——
ditto	116	5	7	0	Nevill & Co.	ditto	14	5	6	6	——
Fowey C.	113	6	4	6	Vivians.	ditto	14	5	6	6	Vivians.
ditto	34½	6	0	0	Freemans.	Gt. W. Char.	60	3	0	0	——
ditto	34½	6	0	0	Williams.	ditto	67	7	0	6	P. Grenfells.
ditto	79	5	6	0	Vivians.	W. Gorland	52	7	5	6	——
Par Cons.	127	7	16	6	Freemans.	Wh. Kitty	40	7	13	6	Vivians.
ditto	93	6	11	6	——	Polbreen	16	3	10	6	P. Grenfells.

TOTAL PRODUCE.

	Tons	£	s.	d.		Tons	£	s.	d.
Treasvean	777	3983	5	6	North Downs	135	612	13	6
Trethellan	353	1808	6	6	Levant	113	1065	9	6
Fowey Consols	260	1667	13	6	Gt. Wh. Charlotte	113	546	13	6
Par Consols	220	1617	19	0	Wh. Gorland	52	378	6	0
Wh. Lydia / South Towan	213	withdrawn.			Wh. Kitty	40	307	0	0
Holmbush	208	1748	18	0	Polbreen	16	56	8	0

Average standard, 122l. 14s.—Average produce, 7¾.—Average price, 4l. 5s. 6d.—Quantity of ore, 2317 tons.—Quantity of fine copper, 172 tons 8 cwt.—Amount of money, 14,726l. 16s. 0d.—Average standard of last sale, 122l. 6s.—Average Produce, 7¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.		
Mines Royal Company	440	£2259	17	0
Vivian and Sons	613	3786	13	6
Freeman and Co.	373½	3769	0	0
Grenfell and Sons	283	2146	11	6
Sims, Willyams, Neville, Druce, and Co.	170	1180	4	0
Williams, Foster, and Co.	247½	1632	18	0
Total	2317	£14,726	14	0

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—United Mines, 1114; Fowey Consols, 301; Consols, 298; Halleubeagle, 286; Treasvean, 123; Trenoll, 150; Perran Mines, 147; Cliff Downs, 30; Dunstanville Mines, 27; Wheal Budnick, 24; Trevool, 13.—Total, 2632 tons.

Copper ores for sale on Thursday week, at Tyack's Hotel, Camborne.—Mines and Parcels.—Consolidated Mines, 993; North Roskear, 763; East Wheal Crofty, &c., 271; Dolcoath, 366; United Hills, 320; South Roskear, &c., 331; Fowey Consols, 302; Trethellan, 233; East Pool, 214; South Wheal Basset, 177; Wheal St. Andrew, 167; Stray Park, 142; Wheal Harriet, 134; Treleigh Consols, 87.—Total, 4480 tons.

SALE OF BLACK TIN,

By Ticket, on the 19th and 20th of April, at Penzance and Truro.

Mines.	Tons.	Price.			Amount.			Purchasers.
Charlestown Mines	11⅞	48	2	6	£565	9	4½	Williams and Co.
ditto	11⅞	48	2	6	565	9	4½	L.C.&W.Daubuz
ditto	18½	47	7	6	876	8	9	Bolithos and Co.
ditto	12½	46	15	0	584	7	6	Williams and Co.
ditto	6½	45	0	0	292	10	0	Bolithos and Co.
ditto	2¼	42	15	0	96	3	9	Williams and Co.
ditto	3½	41	10	0	145	5	0	L.C.&W.Daubuz
Wheal Mary	10½	48	12	6	510	11	3	Bolithos and Co.
ditto	10½	48	12	6	510	11	3	Williams and Co.
ditto	5	38	0	0	190	0	0	ditto.
Bottle Hill	6⅞	45	7	6	306	5	7½	ditto.
ditto	6⅞	45	7	6	306	5	7½	L.C.&W.Daubuz
ditto	1½	26	0	0	39	0	0	Bolithos and Co.
Polgooth	13¼	48	12	6	644	5	7	L.C.&W.Daubuz
ditto	1½	44	10	0	66	15	0	Bolithos and Co.
Wheal Friendship	6	45	7	6	272	5	0	Williams and Co.
ditto	3	44	15	0	134	5	0	L.C.&W.Daubuz
ditto	½	32	12	6	16	16	3	Williams and Co.

Total tons, 132.—Total amount, £6122 14 4.

LATEST CURRENT PRICES OF METALS.

LONDON, APRIL 23, 1841.

	£	s.	d.		£	s.	d.
IRON, Eng.—Bar ton 0 0 0 to	8	0	0	COPPER—Foreign.... (dy. 37s.)			
Do. Carg. in Wales	7	0	0	TIN, Brit.—Blocks.... cwt	4	2	0
Hoops .... ton	10	0	0	Bars .... do.	4	4	0
Sheets, ... ton	11	0	0	Banca .... 0 0 0 to	3	13	0
Pig, No. 1 .... ton	5	0	0	Straits .... 0 0 0 to	3	11	0
Do. in Wales	4	5	0	Tin Plates—I.C. (box).. 1 11 0 to	1	15	0
Foreign— Swedes, cn. bd. ton	14	0	0	I.X. do. .. 1 17 0 to	2	1	0
Russian com.... ton	14	10	0	(Others in proportion.)			
Duty 30s. per ton. P.S.I. .... ton	15	10	0	LEAD, Brit.—Pig .... ton	20	10	0
C.C.N.D. ton	18	10	0	Sheet .... ton	21	5	0
STEEL, Eng. Blistered, 25 0 0 to	45	0	0	Shot .... ton	22	5	0
Shear do. do. 45 0 0 ..	84	0	0	Red .... ton	21	5	0
Cast do. do. 45 0 0 ..	84	0	0	White (dry).. ton	26	10	0
Foreign— Swedes in kgs bd ton	20	0	0	Do. (gd. in oil) ton	25l a	28l	
Duty 20 per cent. Do. Faggots bd. ton	21	0	0	Foreign—Span. (dy. 40s.) .	20	5	0
Milan.... bd. ton	0	0	0	SPELTER .... 0 0 0 to	26	5	0
COPPER, Brit.—Cake .... ton	96	0	0	For delivery 0 0 0 to	25	15	0
Tile .... do.	94	0	0	English Sheets	39l a	41l	
Sheets .... lb. 11½d to 1s				QUICKSILVER—(dy. 1d. per lb.)	0	3	11

REMARKS.—The iron market is steady at quoted prices. Copper rather lower, and dull of sale—tin very flat—lead in rather more demand, at better prices. A further rise in spelter has taken place abroad, and still higher prices are expected; at Hamburgh to-day's mail brings it 16 marcs on board—equal to 25l. 10s. there.

EXPORTS OF BRITISH AND FOREIGN METALS

From London and Liverpool, for the month ending March 31, 1841.

	British.	Foreign.	Total.
Iron .... tons	14,165	203	14,368
Steel	160	31	191
Copper	10	249	259
Do. sheets	626	—	626
Tin	50	203	253
Do. plates.. boxes	24,134	—	24,134
Lead .... tons	538	55	593
Spelter	—	11	11
Quicksilver .... lbs.	—	275,324	275,324

COAL MARKET, LONDON.

MONDAY.—Price of coals per ton at the close of the market:—Bell Robson's Hartley 16 6—Buddle's West Hartley 17—Holywell Main 17 9—New Tanfield Moor 16—Pontop Windsor 17—Tanfield Moor 20—Wylam 16—Wall's End Bewicke and Co. 19 6—Hilda 18—Percy Bensham 16—Braddyll's Hetton 21 9—Hedley 19 6—Haswell 22 3—Lambton 22 3—Hartlepool 22 3—Russell's Hetton 22—Stewart's 23 6—Adelaide 21—Seymour Tees 19 9—Tees 21—Tees Hetton 16 6—Cowpen 16 6—Furnace 14 6—Elgin 16.—Ships arrived, 12.

WEDNESDAY.—Adair's Main 15 6—Bell Robson's Hartley 15 6—Smith's Pontop 15 6—South Hartley 15 6—Holywell Main 17 9—Original Windsor's Pontop 17—Pontop Windsor 17—Tanfield Moor 20—Williams' Hartley 15—Wylam 16—Wall's End Hilda 18—Northumberland 16 6—Hartley 18—Braddyll's Hetton 22—Haswell 22—Russell's Hetton 22—Kelloe 22—Hedley 19 6—Hetton 22 3—Lambton 22 3—Pemberton 18 9—Stewart's 22 6—Caradoc 22 6—Gordon 18—Seymour Tees 19 9—South Durham 19 3—Tees 21—West Hetton 18 9.—Ships arrived, 69.

FRIDAY.—Adair's Main 15 6—Charlotte Main 16—Carr's Hartley 17 6—New Tanfield Moor 16—Holywell Main 17 6—Chester Main 16 3—Ord's Redheugh 14 6—Pontop Windsor 17—South Hartley 15 6—Townley 15 3—Williams's Hartley 15—Wall's End Bewicke and Co. 19 6—Clennell 15 6—Hotspur 17—Newmarch 17—Northumberland 16 6—Braddyll's Hetton 21 9—East Hetton 18 3—Hedley 19 3—Hetton 22—Lambton 22—Russell's Hetton 22—Hartlepool 22—Stewart's 22 3—Caradoc 22 3—Tennant's Hartlepool 20 6—Adelaide 20 6—Tees 21—West Tees 17—Willington 16—Hadley 18.—Ships arrived, 75.

PRICES OF MINING SHARES.

Shares.	BRITISH MINES.	Paid.	Price
500	Anglesey	5	9
4,000	Bissoe Bridge	5	1½
8,000	Blaenavon	45	40
20,000	British Iron	60	67 dis
100	Copper Bottom	41	30
2,000	Cornubian Lead Co.	3½	1½
6,000	Cornwall Great United	10½	1
1,000	Cuddra	10	1
5,000	Dartmoor Consols	5	1
10,000	Durham County Coal Co.	37	—
2,800	Danescombe	—	3
2,000	De Dunstanville	—	—
1,000	Duffield	30	12
1,200	East Mulberry Hills	3½	1
3,200	Great Wh. Prosper	7½	6½
4,000	Great Wh. Charlotte	3	1½
10,000	Hibernian	12½	3
1,000	Holmbush	14	40
2,000	Isle of Sark (Guernsey)	10½	13
20,000	Mining Co. of Ireland	7	16½
6,000	Polbreen	4	1
2,000	Relistian	—	1½
5,000	Redmoor Consolidated	5	1
10,000	Rhymney Iron	50	25
800	South Towan	10	1½
4,000	Tregollan	4	⅜
4,000	Treleigh Consols	4⅞	1½
4,505	Tamar Consols	3	2
6,000	Tin Croft	6½	4½
128	Trevaskus	60	50
4,300	Tretoil	1½	3½

Shares.	BRITISH MINES.	Paid.	Price
4,000	United Hills	5	8½
6,000	Wicklow Copper	5	8
3,845	West Wheal Jewel	8	4½
1,000	Wheal Julia	—	5½
5,300	Wheal Leeds	¼	—
	FOREIGN MINES.		
5,000	Alten Mining Company	12½	8
10,000	Anglo Mexican Co.	100	¼
5,374	Do. Subscription	25	1
2,000	Bolanos	150	10
	Ditto Scrip	15	9
10,000	Brazilian Imperial	20	7½
10,000	Bolivar	20	¼
10,000	Ditto Scrip	10	2
10,000	Cata Branca (Brazilian Co.)	6½	6½
10,000	Concepcion (Brazilian Co.)	4	—
12,000	Cobre Copper Company	40	37
8,500	Colombian Co. regis.	55	2
10,000	Copiapo Mining Co.	13½	9
20,000	General Mining Asso.	18	2
5,351	Mexican Company	38	3½
12,000	Mocambas and Cocaes	25	4
14,582	Real del Monte, regis.	63½	2½
	Do. unregistered	—	2½
	Ditto Loan Notes	150	160
7,000	Royal Santiago	10	3
11,000	St. John d'el Rey	14½	2½
10,000	United Mexican	40	2
	Black Scrip, addl. capital	5	3
	Red New Scrip	5	4

RAILWAY SHARE LIST AND TRAFFIC RETURNS.

Line.	Entire Lgth.	Now Open.	Present actual cost.	Pd. on Share.	Val. of Share.	Last week's Returns.		
Birmingham & Derby Junc.	48	38½	£ 853,644	100	70	1109	19	4
Birmingham and Gloucester	53¼	53¼	1,018,723	100	76	1476	11	2
Dundee and Arbroath	16⅞	16⅞	134,834	25	27¼	209	9	10½
Eastern Counties*	126¼	17¼	1,476,170	23	9¼	774	4	8
Glasgow and Ayr	51	40	601,345	47	38¼	931	15	4
Glasgow and Paisley Joint	6¼	6¼	210,000	25	25¼	754	2	4
Grand Junction	97¼	97¼	1,956,000	100	211	7627	1	5
Great North of England	75	45	1,000,000	90	76	987	10	1½
Great Western	117	82	5,298,044	85	94⅞	7773	9	9
Hull and Selby	31	31	660,000	50	43¼	730	13	6
Lancaster & Preston Junc.	20¼	20¼	350,000	42½	31	460	14	1
Liverpool and Manchester	31	31	1,410,000	100	188	4479	9	5
London and Birmingham	112½	112½	5,724,937	90	169	14933	15	4
London and Blackwall	3½	3½	917,000	25	19½	652	9	1
London and Brighton	46¼	34	1,491,985	50	47⅞	170	12	7
London and Croydon	10¼	10¼	557,902	13⅞	14	618	6	9
London and Greenwich	3¾	3¾	780,205	20	8¼	1067	8	6
London and South Western	81	76¼	2,293,587	50⅞	58¼	3161	11	8½
Manchester, Bolton, & Bury	10	10	779,936	80	35	794	7	1
Manchester & Birmingham	45	5	1,106,412	40	23¼	332	3	7
Manchester and Leeds	50	50	2,523,000	70	65¼	3084	4	6
Maryport and Carlisle	28	7	240,000	50	47			
Midland Counties	57	57	1,440,000	100	90¼	2308	17	7
Newcastle and Carlisle	60¼	60¼	750,000	100	107	1240	2	9
Northern and Eastern†	33¼	19¼	556,913	50	31	608	1	8
North Midland	72⅞	72⅞	2,929,027	100	79	2764	11	6
North Union‡	23	23	550,000	75	80	1071	11	10
Preston and Wyre	19¼	19¼	274,240	50	30	182	8	9
Sheffield and Rotherham	5¼	5¼	130,317	25	32			
Ulster	25	8	220,245	22¼	—	228	3	11
York and North Midland	23	23	446,500	50	81	1554	19	10

* Including Northern and Eastern Railway toll. † Rent and toll to Eastern Counties (about 120l. per week) included in the returns. ‡ The Liverpool and Manchester toll is deducted.

METEOROLOGICAL JOURNAL, 1841.

	April	Thermometer		Barometer			April	Thermometer		Barometer	
Thursd.	15 from	31 to	45	29.92 to	29.79	Monday	19	40	55	29.84	29.80
Friday	16	29	47	29.73	29.79	Tuesday	20	33	52	29.74	29.80
Saturd.	17	34	55	29.90	29.90	Wednes.	21	34	54	29.79	29.80
Sunday	18	29	61	29.83	29.88						

On the morning of the 15th clear, afternoon and evening cloudy, with rain; the 16th and 17th, generally clear; the 18th, afternoon clear, otherwise overcast; the 19th, generally clear, rain fell during the morning; the 20th, cloudy; the 21st, generally clear. Rain fallen .32 of an inch.

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